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GIFT OF PUBLISHER

Amateur movie makers.

MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

25c

JANUARY, 1936

IT'S THE SOUND OF MERRIMENT THAT MAKES THE MOVIE *LIVE!*

All out-of-doors is full of sound — the jingle of bells, the swish of sleds, the crunch and crackle of snow and ice, the shouts and shrieks of crowds, the joyful voices of happy children. *This sound can all be recorded!*

RCA makes it possible for you to preserve not merely movies, but *talkies* of winter sports. The RCA Sound Camera catches all. This remarkable camera is a simplification of Hollywood studio cameras, yet does not require professional skill to operate.

Your Own News Reels

How to be a news reel reporter: as you shoot the scene, speak into microphone located in camera itself, recording your own comments, abolishing printed titles.

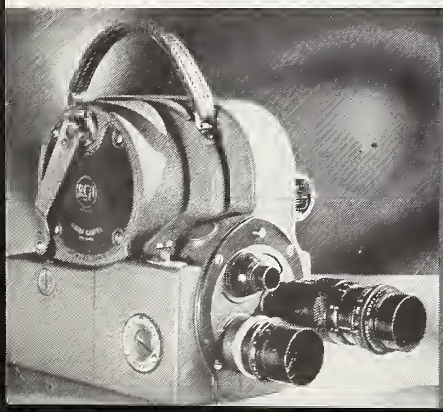
Studio Method

When you want to record the actual sounds, place a microphone out of sight in the scene, and shoot. With either method, synchronization is entirely automatic, as the sound record is photographed on the film along with picture.

RCA Sound Projector

For superior results with either sound or silent films, use the RCA 16mm. Sound Projector, which also is a simplified form of professional equipment. Simple as ABC to use, amazing in its perfect results. Ask your dealer for demonstration, or write for catalog.

Permanently records *both* sound and picture



Reproduces *both* sound and pictu

16mm. SOUND-ON-FILM CAMERA AND PROJECTOR

VISUAL SOUND PRODUCTS DIVISION
RCA MANUFACTURING CO., INC., CAMDEN, N. J. • A SUBSIDIARY OF
RADIO CORPORATION OF AMERICA

TR845
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THANK YOU

FOR HELPING TO MAKE 1935 THE GREATEST OF OUR 25 YEARS

'35 Great Year in VICTOR History

'36 A Year of Great Promise.

And Victor Has never had a more Attractive Selection to offer.

VICTOR

REG. U.S. PAT. OFF.

16 MM

MAJOR ATTRACTION TO START THE NEW YEAR

is

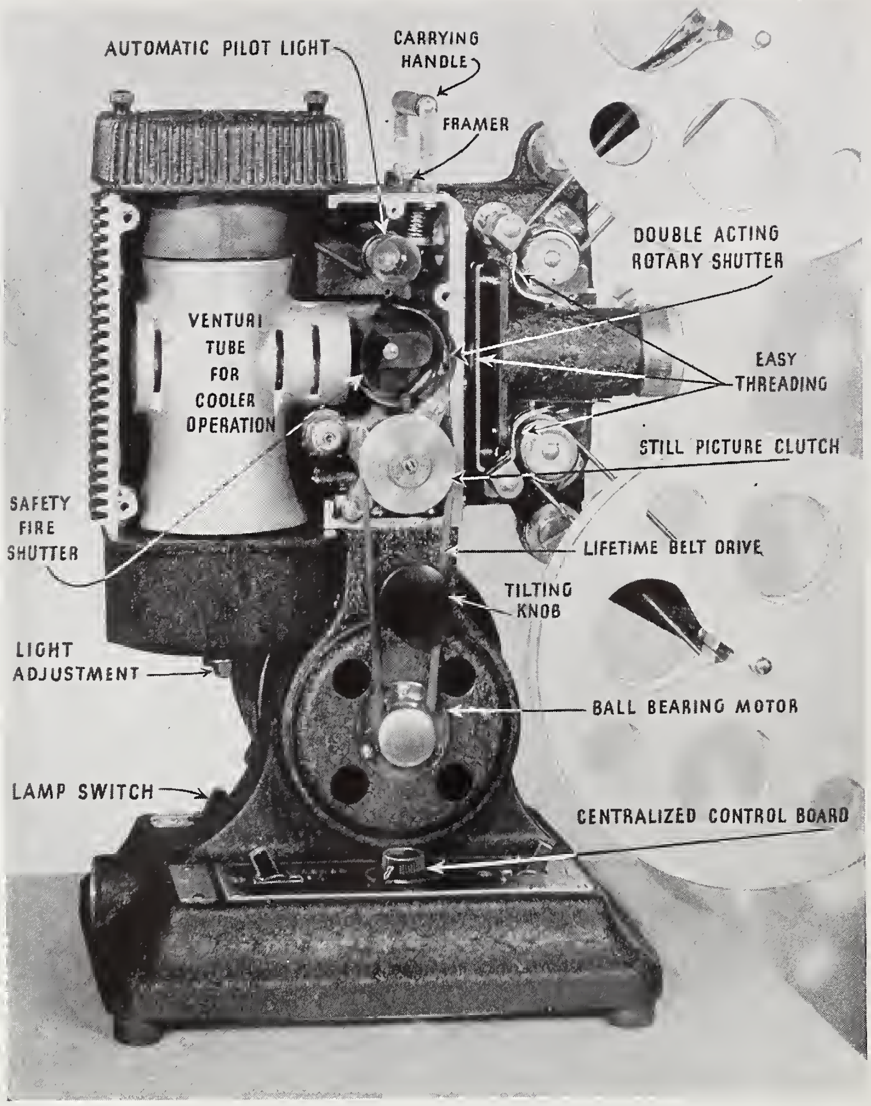
MODEL 25 ANIMATOPHONE

World's Smallest, Finest, Lowest Priced

HIGH QUALITY SOUND PROJECTOR

VICTOR ANIMATOGRAPH CORP.
NEW YORK · CHICAGO · DAVENPORT, IOWA · LOS ANGELES

CAMERAS · SILENT *and* SOUND PROJECTORS



X-RAY *for these hidden Values!*

See why AMPRO actually gives you longer and more brilliant Projection Service—

Look inside an Ampro Precision Projector and fully understand why it is recognized as the outstanding value in the 16mm. projector field. Check carefully the photograph above. Note the important engineering advancements that, added to the basic principle of theater-clear projection, make an Ampro machine absolutely effortless in operation. Anyone can set it up in less than two minutes and secure steady, brilliant, flickerless performance without any skill required even under the most severe projection conditions. You'll find that these many Ampro improvements add immeasurably to the operator's convenience and afford longer and more satisfactory service. Experience for yourself the excellence of Ampro performance . . . . see for yourself how all the Ampro parts co-ordinate to produce results more brilliant than you could expect . . . . ask your dealer today for an Ampro demonstration. Silent projectors complete with carrying case and all accessories priced from $135. Sound-on-Film model, $650.

Choose the Projector that has all these features:

1.—Double Acting Rotary Shutter: Exclusive feature—provides more illumination.
2.—Easy Threading: Ample space between sprockets and independent sprocket shoes plus unobstructed access to film gate.
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7.—Framer: For out-of-frame prints.
8.—Lifetime Belt Drive: Noiseless—absorbs the shock of sudden stopping and starting.
9.—Tilting Knob: Quick acting. For better projection adjustment.
10.—Ball Bearing Motor: Sealed in grease. Lasts longer. Self-lubricating.
11.—Lamp Switch: Conveniently located.
12.—Light Adjustment: Gives maximum light efficiency by proper alignment of lamp filaments.
13.—Safety Fire Shutter: Prevents injury to film.
14.—Automatic Pilot Light: A useful aid for enjoyable projection.

The
AMPRO
CORPORATION
2839-51 NORTH WESTERN AVENUE
CHICAGO

Precision projectors for perfect performance

MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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Advertising rates on application. Forms close on 10th of preceding months.

USE YOUR CHRISTMAS CAMERA TO SHOOT REAL HOME MOVIES

with **G-E MAZDA Photoflood lamps** 25c LIST

Unlimited movie possibilities indoors and at night are open to you . . . with G-E MAZDA Photoflood lamps.

Simply insert a few* G-E MAZDA Photoflood lamps in bridge, floor or table lamps, placing them to light your subjects. Then shoot away.

These lamps are good for dozens of shots. Get them where you buy film. But be sure to look for the GE on the end of the bulb. Then you are sure of full value for your money.

*FREE—"General Electric's Handy Pocket Guide for the Home Movie Maker." Gives number of lamps and distances from subjects when you use supersensitive regular pan, 8 mm., and Kodachrome. Write General Electric Co., Dept. 166, Nela Park, Cleveland, Ohio.

Ask your dealer about the $2500 prize contest for pictures at night. Your stills might win a prize.

GENERAL ELECTRIC MAZDA PHOTO LAMPS

Closeups—What filmers are doing

In connection with that outstanding Kodacolor production, *A Christmas at Home*, recent Ten Best award winner, it should have been stated that Kennard Scofield, of Hartford, Conn., was virtually coproducer, with Edmund Zacher, II, ACL, of the film. In countless of the delicately angled closeups, it was Mr. Scofield's hands which wrapped the Christmas package, shook the holiday shaker or raised the festive cocktail. Indeed, many of the striking ideas for the film's treatment, we are informed, were contributed by Mr. Zacher's silent but untiring partner. We are happy to have this opportunity of including him in the honors which so rightfully have accrued to this fine picture.

Speaking at New York University before a class of study on the motion picture, Colonel Roy W. Winton, ACL, managing director of the League, outlined recently the scope and possibilities of personally made pictures under four main headings: record films, pictorial films, persuasive films and imaginative films. In illustration of the several points which he made regarding these types of films, Colonel Winton screened selections from last year's roster of Ten Best and Honorable Mention pictures, as announced in the December number of Movie Makers. They were, respectively, *Peggy's Cove*, by Edward A. Bollinger, ACL; *Bermuda, the Floating Gardens*, by K. T. Kostich, ACL; *London Terrace*, by T. W. Willard, ACL; *In the Beginning*, by F. C. Ells, ACL.

Bell & Howell

Capt. Albert W. Stevens used an Eyemo camera in filming his stratosphere expedition

During his recent trip to Denmark, John V. Hansen, ACL, movie color devotee and expert, acquired new laurels and extended the fame of amateur movie making. The *Berlingske Tidende*, daily newspaper in Copenhagen, invited 300 state officials, industrial leaders and hotel managers to view Mr. Hansen's North Cape pictures in Kodacolor and his *Washington* in Kodachrome. The success of this party and the enthusiasm for color movies that it evoked caused what is probably the first theatrical use of Kodachrome. The Nora Bio Theatre, seating 1200, ran Mr. Hansen's 400 ft. Kodachrome film, *Washington*, for a week as an attraction on its regular program. The theatre's screen, twenty nine by twenty one feet in size, was filled with a 16mm. Kodachrome image by the use of a German arc lamp 16mm. projector, especially constructed for such work. Musical accompaniment was arranged by means of phonograph records and a turntable, while the narration was handled by the manager of the theatre, speaking through a microphone in the projection room. The report, attested by dozens of newspaper stories, is that the presentation was an enormous success, the color reel taking precedence over the feature itself. An interesting point is that, after a week of continuous theatrical use in addition to many other projections, the film is in perfect condition.

Following the public presentation, Mr. Hansen addressed a meeting of the Industrial Society of Denmark on the subject of motion picture color processes, his points being illustrated by the projection of reels of Kodacolor and Kodachrome and portions of *Becky Sharp*, the Technicolor feature. Mr. Hansen was at first somewhat dismayed by the furor that his color pictures created, because the Washington Kodachrome reel, made immediately after the process became available, represents his first experiments in that medium. However, the Danish theatres are asking for more.

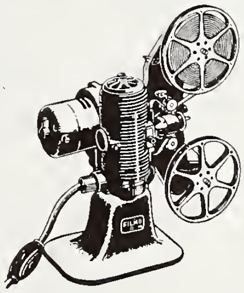
If you have a choice film that has been started in black and white and want to finish it in color, you will be interested in hearing how Riley Hess, ACL, of Ogden, Utah, solved this problem. He had been working hard on a carefully planned reel which would picture, in monochrome, his wife, daughter and the family flower garden. Along came the new color film! Obviously, thought Mr. Hess, of all subjects a garden film deserved polychromatic treatment, but he couldn't discard the good start that he had made. So, the plot was switched, the little girl had a dream that her garden suddenly blossomed in brilliant hues, and she awoke next morning to find with delight that the dream was true.

BELL & HOWELL FILMO 8's

now made in two models

FILMO *DOUBLE 8* and FILMO *STRAIGHT 8*...

The new Filmo Double 8 Camera (above) has Taylor-Hobson 12½ mm. F 2.5 lens; four film speeds—8, 16, 24, and 32 frames per second; built-in, fully enclosed spyglass viewfinder with hinged masks for extra 1-inch and 1½-inch lenses; many other fine features.



FILMO 8 PROJECTOR *(Right)*

Large, brilliant, flickerless, rock-steady pictures with this precision projector. 400-watt illumination and fast F 1.6 lens. Capacity—200 feet of 8 mm. film. Fully gear-driven. Send coupon for literature.

BELL & HOWELL COMPANY

CHICAGO • NEW YORK • HOLLYWOOD • LONDON

World's largest manufacturer of precision equipment for professional motion picture studios. Established 1907

Truly pocket-size cameras that make theater quality movies with new convenience and economy

The new Filmo Double 8 Camera uses Eastman "double-run" film in 25-foot rolls which are returned from the processing laboratory as 50 feet of 8 mm. film.

The Filmo Straight 8 Camera uses B&H Filmopan 8 mm. film in 30-foot "single-run" rolls costing only $1.45, including processing.

Both Filmo 8's possess all the inherent precision craftsmanship that goes into every piece of Bell & Howell equipment. As the result, they make 8 mm. pictures of unbelievably fine quality. What you see, you get—with Filmo!

Truly pocket size, and weighing only 24 ounces, the Filmo 8's are the world's smallest movie cameras. They introduce new ease in camera use, for there are no sprockets to thread, no loops to form. Easily carried wherever you go, and instantly and inconspicuously brought into use, they are indeed the "candid cameras" of personal movie making. Their film is so inexpensive that the most active movie maker need not feel extravagant.

See the Filmo 8's at your dealer's, or send the coupon for descriptive literature.

MAIL COUPON FOR BOOKLET

Bell & Howell Company, 1843 Larchmont Ave., Chicago, Ill.

Please send booklet on ☐ Filmo Straight 8, ☐ Filmo Double 8, ☐ Filmo 8 mm. Projector, ☐ Filmo 16 mm. Cameras, ☐ Filmo 16 mm. Projectors.

Name.. *Address*..

City.. *State*..

Only 99 50 at BASS

AMPRO MODEL "A" Bass offers the biggest bargain in the industry. This 16mm. AMPRO is equipped with 400 watt Biplane Mazda equal in illumination to 500 watt. High power cooling system, high speed mechanical re-wind. Centralized controls. Silent fibre gears. Forward and reverse. Oversize motor. Ideal for Kodachrome. Light weight. Ampro exclusive tilt. Originally $135.

At Bass only **$99.50**
COMPLETE WITH CASE

ORDER DIRECT
from this ad. BASS personally guarantees 100% satisfaction. Your money back without red tape. BASS takes your present equipment as part payment. Write to BASS for details: BASS Bargaingram and catalog of other Ampro Models. Get the new BASS large catalog of 16mm. silent and Sound-on-Film Library.

BASS
CAMERA COMPANY
DEPT. C
179 West Madison Street
Chicago
Camera Headquarters for Tourists

Practical films

Reporting use of personal films in serious fields

■ The Danbury Trojans, state professional football champions of Connecticut, may owe part of their success to movies, for J. L. Thompson, ACL, of Danbury, manager of the team, has movies made of every game. The camera is running at a speed of thirty two frames a second almost all the time that the ball is in play. The resultant slow motion pictures are shown to the team twice a week, and it is reported that they are very useful in correcting faults, the more so because Mr. Thompson, who coaches the team, also plays and, without the movies, he would not have direct knowledge of how the action appears from the sidelines. The film is taken from a twenty foot tower that commands an unobstructed view of the whole field.

■ In his Little Theatre of Commerce, William J. Ganz, industrial motion picture producer in New York City, has achieved something new and possibly something of great significance in the presentation of non theatrical films. Once a week, four selected sound on film industrial pictures are screened for an invited audience at the Little Theatre of Commerce at 19 East 47th Street, New York City. The program is presented twice during the day, and anybody interested in commercial motion pictures may attend. Any advertising executive may nominate an industrial film for screening on one of the programs, provided that the film illustrates how a definite merchandizing problem may be solved by the motion picture.

■ A 400 ft., Kodachrome reel, showing how fine wallpaper may be used in decorating a home, was completed recently by T. W. Willard, ACL, for Richard E. Thibaut, Inc., in New York City. This all interior color picture is of remarkable quality and clearly shows the various wallpaper designs that are featured.

■ In Brooklyn, N. Y., Mrs. E. F. Gureasko, ACL, recently has made a short picture of classroom activities in one of the Brooklyn high schools to show to parents who cannot attend Open School Week. The film presents the highlights of a typical day.

■ A new record in the rental of safe deposit boxes by the Lincoln Savings Bank of Brooklyn has been attributed directly to the production and use of a substandard advertising motion picture on the subject, according to Herbert Gerdts, ACL, advertising manager of that institution. A positive check on the film's effect was obtained by restricting its use to but one of the bank's four branches, which proceeded very definitely to outstrip the others and its own previous record in safety deposit business. The success of this film, which was produced by Mr. Gerdts and presented on a continuous projector, has sold the Lincoln Savings Bank on the value of motion pictures in advertising. A new production, "plugging" the institution's Christmas Club services, has already gone before the cameras and will soon be in use.

■ So that his patients and prospective patients may know just what different kinds of dental work he has to offer and what these will involve in the way of elaborateness, Dr. Charles S. Webb, jr., ACL, in Bowling Green, Ky., has prepared two full reels of 8mm. film illustrative of his chief dental operations. When a hesitant patient inquires, let us say, as to just what it will mean to have a gold crown put on an ailing molar, Dr. Webb simply refers the patient to his attendant who runs off the appropriate demonstration reel. The two reels of film, reports Dr. Webb, have been his most successful aids to date in getting and holding business.

■ Audio Productions, Inc., reports recently completing a three reel picture embracing the activities of the Public Service of New Jersey. The three reels deal separately with the basic factors—gas, electricity and transportation.

■ *Bee Culture* is the title of a one reel picture on raising and caring for bees, recently filmed in Baltimore, Md., by Jerome C. Cvach, ACL. The reel depicts how a hive is equipped, how the colony lives and how honey is gathered. Taking honey from the hive and protecting the hives for winter are also shown. Mr. Cvach is using the film with talks for clubs and churches.

■ The courses of study and physical facilities for carrying them on at the Ottawa Technical School, in Canada, have been pictured in pleasing and well sequenced form by F. R. Crawley, ACL, in a 600 foot, 16mm. production, *School Days at Tech*. Mr. Crawley has not hesitated in his presentation to dress up the beauty and interest of his film with cinematic angles and simple, intelligent uses of double exposure and other effects, in proof of the theory that a record picture need not of necessity be plodding and commonplace in its treatment. A delightful multiple exposure sequence, picturing the bewilderment of a student at the mass of work which he envisions before him, stands out in a generally imaginative production.

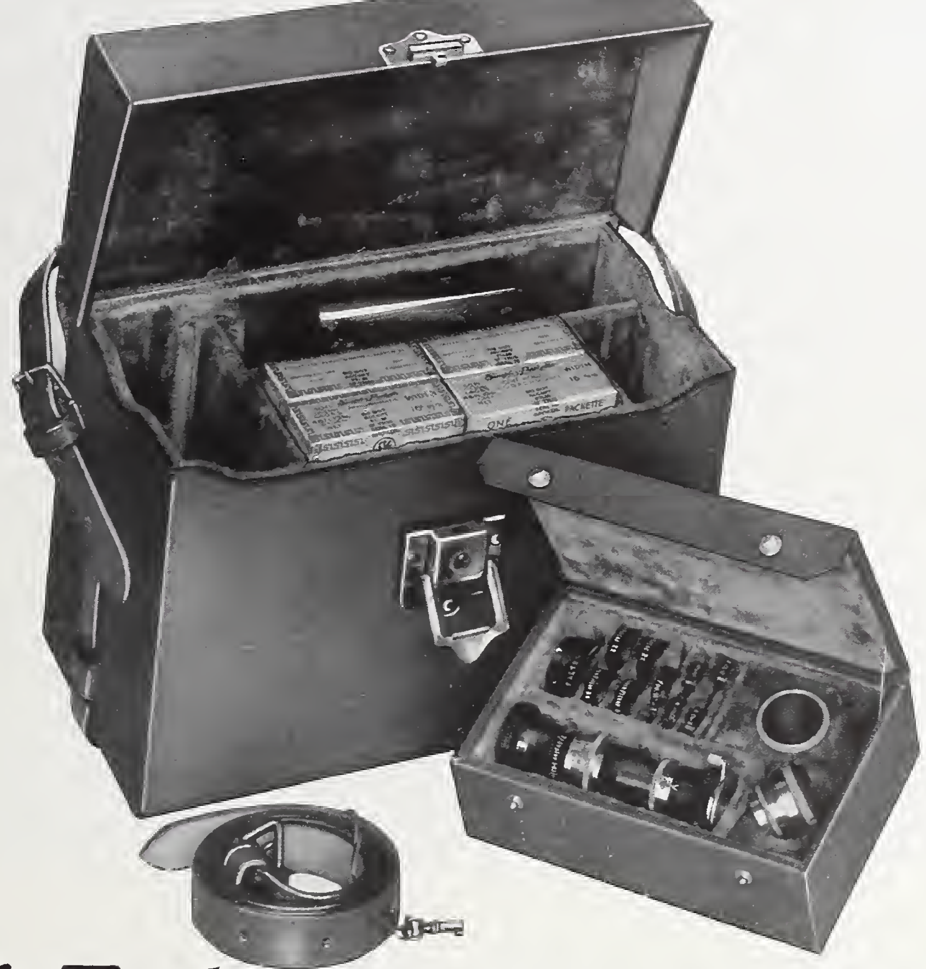
Simplex Pockette

TRADE MARK REGISTERED

16 MM. MOVIE CAMERA

FITTED TRAVEL CASE

A Complete Equipment for all Conditions



Simplex Pockette FITTED TRAVEL CASE

TRADE MARK REGISTERED

Made with the care which is characteristic of all Simplex products, and provides a splendid carrying container for the complete Simplex Pockette equipment. All details have been given most exact attention and the complete equipment will meet every requirement of the maker of 16 mm. motion pictures.

Case is made of dark tan English saddle leather, hand sewn, silk plush lined, brass lock, hand strap and shoulder strap, fitted with Model CC Simplex Pockette Camera, equipped with Simplex Optical View Finder. Separate plush lined leather case in compartment contains the following essential accessories: Eastman Kodak 1" f 1.9 anastigmat focusing lens, Hugo Meyer & Company 20 mm f 2.8 Trioplan fixed focus lens, Hugo Meyer & Company 3" f 4.5 Trioplan telephoto lens, 2X and 5X yellow filters and portrait attachment for the 2.8 lens, W mount with yellow filter cells CK2-CK3, Kodachrome haze, Kodachrome photoflood for f 1.9 lens, 2X and 5X yellow filters and U-10 Kodachrome haze filter for telephoto lens, ¾", 1", 3", masks for view finder. Compartment in case for four magazines of film, also plush lined compartment that will accommodate extra telephoto lens or exposure meter.

INTERNATIONAL PROJECTOR CORPORATION

88 – 96 GOLD ST. NEW YORK, N.Y.

INDOOR MOVIES WITH OUTDOOR SIMPLICITY

INDOOR movies offer the cinemateur unlimited opportunity for unusual and dramatic sequences.

Providing . . . that his camera is loaded with a film designed for interior work . . . a film such as Agfa 16mm. Fine-Grain Superpan Reversible.

Superpan is an extremely fast film . . . and is sensitive to all colors including red. Its wide latitude minimizes errors in exposure. These qualities make Superpan an ideal film for interiors, by daylight, or by Photofloods.

And its extreme fineness of grain means larger size projection without noticeable grain . . . with greater brilliance, depth and detail.

Agfa 16mm. Fine-Grain Superpan Reversible is available in 100-foot rolls at $7.50, and in 50-foot rolls at $4.00, including processing and return postage.

OTHER 16MM. FILMS

Agfa Fine-Grain Plenachrome:

100-foot rolls	$4.50
50-foot rolls	2.75

Including processing and return postage.

Agfa Panchromatic Reversible:

100-foot rolls	$6.00
50-foot rolls	3.25

Including processing and return postage.

Agfa Fine-Grain Panchromatic Negative:

100-foot rolls	$3.50

Developing not included.

200-foot and 400-foot rolls (laboratory packing) available.

Agfa

MADE BY AGFA ANSCO CORPORATION IN BINGHAMTON, N. Y.

The AMATEUR CINEMA LEAGUE, Inc.

whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

DIRECTORS OF THE LEAGUE

HIRAM PERCY MAXIM, *President*	Hartford, Conn.
STEPHEN F. VOORHEES, *Vice President*	New York City
A. A. HEBERT, *Treasurer*	Hartford, Conn.
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FLOYD L. VANDERPOEL	Litchfield, Conn.
T. A. WILLARD	Beverly Hills, Calif.
ROY W. WINTON, *Managing Director*	New York City

Address all inquiries to

AMATEUR CINEMA LEAGUE, INC.
105 W. 40TH STREET, NEW YORK CITY, U.S.A.

About advertising

ANYBODY who reads the impressive directory of the 1935 advertisers of this magazine cannot help being struck by the fact that personal movie making has acquired an amazing number of tools in the last decade. If multiplicity of equipment is any guaranty of wide public acceptance, it is certainly a safe conclusion that amateur motion pictures have long since passed the experimental stage and have become a recognized human activity.

It has become unfashionable for publications, in those of their columns that are not used to advertise products, to make any mention of paid advertising. It may be that the earlier and regrettable combinations that could have been found between the editorial and advertising columns—in which there existed more than a suspicion that the former took color from the latter—left so unpleasant a memory with the public that editors take great care to avoid even a suspicion of reproach. Whatever may be the reason, many publications appear to be unconscious, editorially, that they carry any advertising at all. They seem to deal with their paid for space as if it were, at best, no better than a "harmless, necessary cat" and, at worst, something to be tucked away in front and back corners, where sensitive readers may readily avoid it.

With all due respect to editorial independence and publication ethics, this sublime unconsciousness of paid advertising can readily become absolute nonsense. If a magazine carries interesting advertising of worth while products, it can be, and should be, proud of carrying it. Indeed, it has been said of some publications that their advertising pages are of more interest than the others. Movie Makers hopes that its editorial contents are up to the standard of its advertising and that its advertising is in proper harmony with the rest of its matter. We are proud of our advertising pages and we know that our readers find them of continual interest. We make no pretense of being unselfconscious of them because we know that our editorial independence is unquestioned and that we can, therefore, assert openly that we give our readers something genuinely valuable and interesting in our advertising columns. We need our advertisers and our advertisers need us.

Such a viewpoint is common sense for a specialty magazine devoted to a particular interest, as in our case. More particularly is this true where that interest is served by special tools, without which it cannot be carried on. The advertising pages offer the tools. Movie Makers believes, and acts upon this belief, that it has a special responsibility to its readers in seeing to it that nothing appears within its covers, as paid advertising, that it does not consider worth readers' attention. Therefore, the staff of this magazine makes careful investigation of all goods and services which are advertised for sale by it. Our aim is to present only those offerings which we believe to be a fair value at the price asked. We try to see that these are offered only by responsible individuals or companies. We do not determine whether an item is necessary in movie making or not, because our judgment might be a tired or cynical one. We do not refuse advertising space to small or beginning concerns, because we know that size is not a prerequisite to good sales offers. We hope that our attitude is liberal, but we are fairly sure that we are not easily duped.

For these reasons, Movie Makers is glad to call the attention of its readers, by this discussion, to the advertising directory published in this number. We believe that this directory and the pages to which it refers are of real worth and sound value to everybody who reads this magazine.

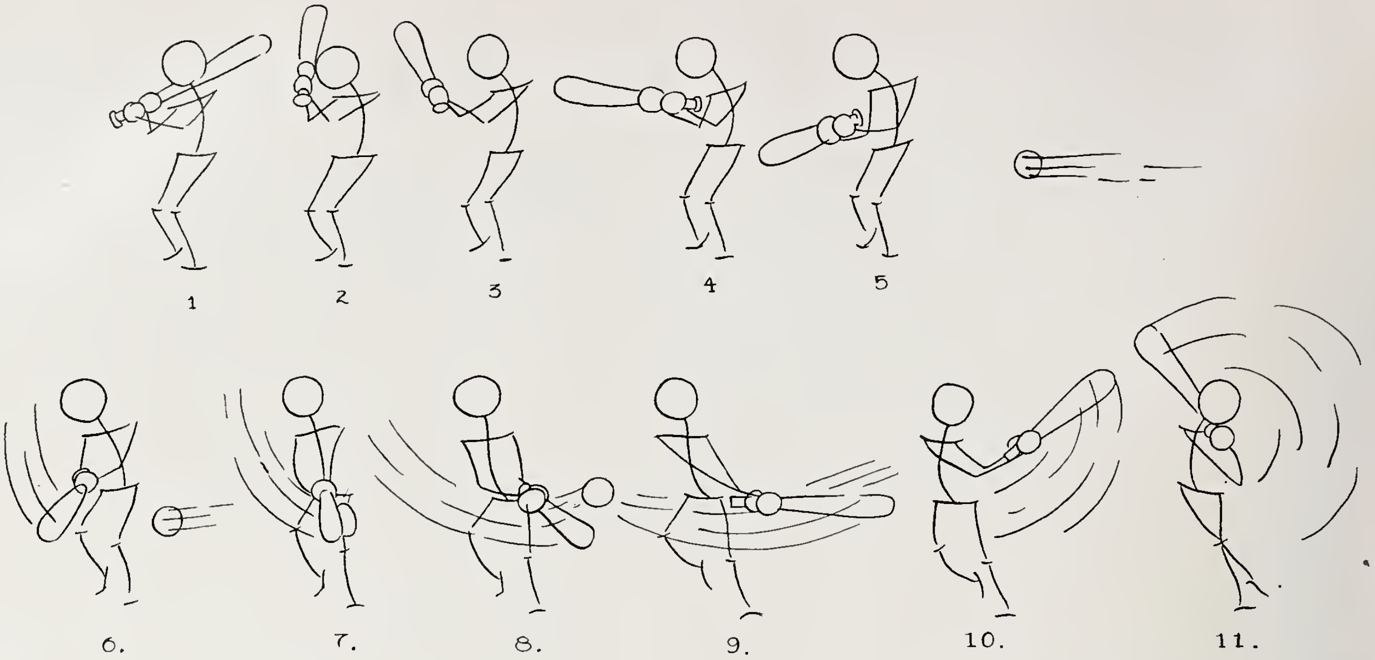

Figure 1

Illustrations and backgrounds taken from Oswald Rabbit Cartoons produced by Walter Lantz and released by Universal Pictures Corp.

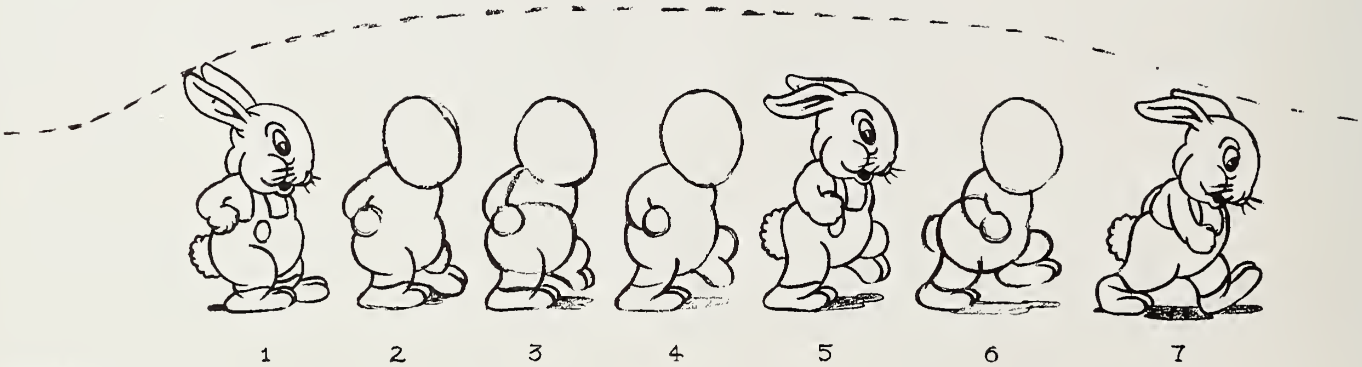

Figure 2

Figure 3

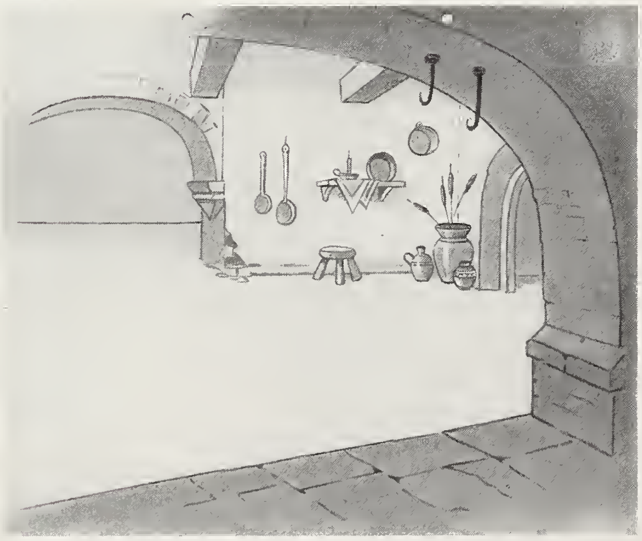

Figure 4

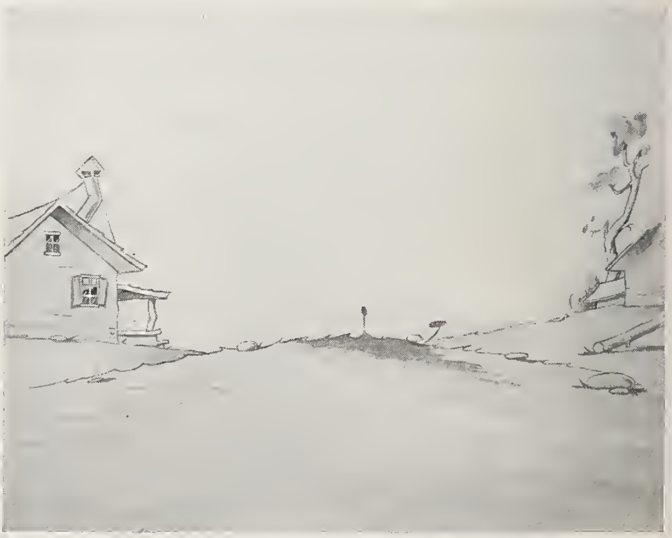

Fig. 1 illustrates "line daffodils" which will familiarize the animator with movement and timing. Fig. 2 shows the walk of Oswald Rabbit and further illustrates timing, while Figs. 3 and 4 show the proper treatment of backgrounds. Note that in both backgrounds there is an area which is light in tone and free from detail and against which the character can work freely. The holes at the top of the backgrounds fit over pins that hold both backgrounds and "cells" in registration for the camera.

Adapting animation

VICTOR McLEOD

Practical outline of basic elements of cine animation

THE creation of a present day animated cartoon is a complicated and tedious process requiring highly skilled work. Some idea of the labor required in producing one of these amusing novelties is realized when it is learned that it takes the combined effort of over a hundred people—writers, artists, assistant artists and technicians—to produce, in three weeks' time, a cartoon of approximately eight hundred feet. These pictures require drawing, inking, painting and photographing between twelve and fifteen thousand drawings.

It is practically impossible for any person to produce successfully a cartoon without a complete and competent staff. There are several novel and entertaining effects, however, that can be animated and produced by the amateur movie maker with a minimum of effort. These can be used to advantage in the production of novelty titles and graphs and in the illustration of points in an industrial reel.

Sketching in titles and drawing pictures under the camera are a novelty to most audiences, and they can be used in many productions. This effect is quite simple and it does not require a great deal of time. The motion picture camera must be equipped with a stop motion device that will enable you to shoot one picture at a time. It must be mounted on a camera stand so that it may be focused on a flat, horizontal camera field. If the stand can be made so that it is possible to truck up and down with the camera, it will be very advantageous for some shots. This is not absolutely essential, however.

Sketch the title lightly with blue pencil on the drawing surface that is used for the background. Over a section of this pattern, draw, with a black pencil, a heavy line from a quarter of an inch to an inch in length. The exact length of this black line will vary according to the speed with which you wish the title to appear. Leave the pencil point at the terminus of the segment of the heavy line and take one exposure. Repeat until the sketch is completed. This can be done equally well with a pen, crayon or brush. The same process is used in drawing a picture. The outline can later be shaded and filled in with a pencil or brush by using, with each exposure, full length shaded strokes of about a quarter of an inch in width.

Another novel effect is writing a title with a pen that seemingly rises unaided from a bottle of ink and, without human aid, proceeds to write or draw upon the drawing surface background. The simplest way to achieve this effect is to secure separate pictures of an ink bottle and a pen. Mount the pictures on heavy cardboard and make cutouts of them. The ink bottle is placed and securely fastened to one side of the drawing paper, but well in the camera field, so that, when a photograph of it is taken, it appears on a background made to look exactly like a drawing easel with the ink bottle resting on the ledge at the bottom of the board. A slit is cut in the top of the ink bottle so that the cutout of the pen can be inserted under the cutout of the ink bottle. causing an effect of the pen being in the bottle.

The pen now is slowly raised from the bottle in half inch moves and one frame is exposed in each position. Continue the motion until the pen has reached the proper position on your drawing board.

The backgrounds can then be changed to eliminate the ink bottle from the picture. This can be done by using a larger pen cutout and a new, plain white background to give the effect of a closer shot or, if your camera stand is movable, this can be accomplished by trucking down to a closer field. A gray shadow cutout of the pen will give the illusion of the pen being in the air; this shadow is moved to a corresponding position with each move of the pen.

Drawing "line daffodils," such as those in Figure 1, is a good approach for a beginner who wishes to learn the fundamental rules of animation. Action of this sort is quite easy to draw and will help to familiarize the animator with movement and timing. The illustrations show the proper action used as a batter swings and connects with a ball. Animation of this kind is the fastest and easiest to do, because it requires inking the drawing again or "opaqueing" it. Each drawing is done on a separate sheet of paper and is photographed separately and in sequence, the white paper acting as the background.

All studios use this method of making tests to photograph the rough action of their characters before going ahead with transferring the drawings to the transparent celluloids. It

Figure 5

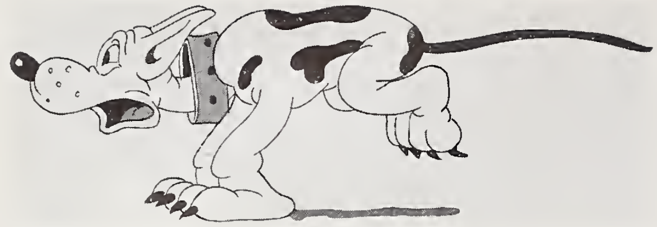

Figure 8

might be likened to a rehearsal to see if the action is smooth and the timing is correct.

Figure 2 shows a walk of Oswald Rabbit, the new Walter Lantz character for Universal cartoons. Drawings one, five and seven are the extremes. The rough drawings are the "in-b-tweens." The foot is brought up slowly to position five and then down fast to complete the step. This technique is what is meant by timing. There is no set rule for timing animation. Try to have the characters give the illusion of natural action as closely as possible. This can be accomplished only by practice and application. The rough drawings are "cleaned up" after the tests are shot so that they are like the extremes. Notice that the size of head and size of body remain the same; therefore a standard circle can be used and traced each time instead of being drawn free hand. This eliminates any fluctuation in the size of the character and also eliminates a great deal of work. The expression on the face in this sequence remains the same throughout, so again a lot of work is saved merely by tracing the head of the master drawing for each of the following drawings. The character, of course, must be animated along the line of action or it will be too stiff. The dotted line indicates the flow of action. This natural flow of action is a set rule that must be adhered to, if the proper result in animation is to be obtained. Keep in mind the movement of a fish swimming in water or the action of a streamer being pulled through the air. The body always follows in a graceful sweep through the same imaginary path set by the head.

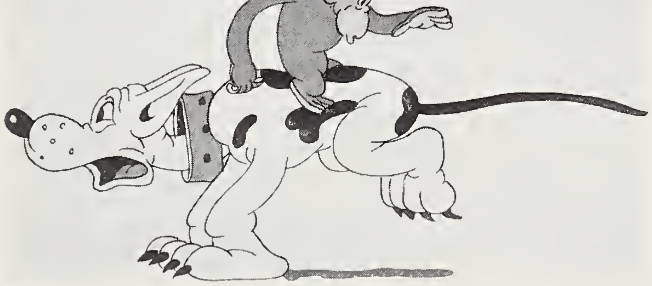

Figure 9

The illustration shows one step of action. The same procedure must be followed with the other foot to get the complete sequence for a walk. By practice, variations of this action can be made into a run of any speed desired. This action can be used for a walk across the camera field or for a walk when the character stays in one place and the background moves behind it. This moving background is a great labor saver and is very essential if much animation is to be produced. The principle may be used in the simplest type of work.

In order to use the moving background, the outline of the action of the characters must be traced in India ink on transparent celluloid sheets. or "cells." This outline is then filled in with opaque water color paint. Different tones and shades, ranging from gray to deep black, are used for filling in. Fotofilm color is the best for this purpose.

The celluloid and drawing paper sheets are all punched with two corresponding holes about three inches apart and a half inch from the top edge. These are known as peg holes and they fit snugly over pegs at the top of the drawing board and at the top of the camera field, out of the picture. This insures a perfect register of all tracings and keeps each movement of animation in register with the preceding movement.

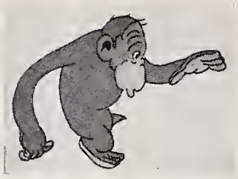

Figure 7

The moving background or "sliding pan" is usually from three to six camera fields in length. It must be fastened to the camera stand so that it will move freely to the right or left but so that it will not fluctuate up and down. It can be placed on sliding pegs that are fastened to a sliding panel or it can be taped securely to the panel. Along the panel, there must be some kind of a scale with calibrations marked off in sixteenths of an inch. A flat steel rule securely screwed down will answer the purpose very nicely.

If the peg holes in the paper and "cells" are at the top, then the sliding panel and scale work from the opposite side or on the edge of the camera stand closest to the cameraman. The top edge of the "sliding pan" slides against the top pegs, the ones upon which the celluloid action sheets are fitted.

In animating a character of Oswald walking along a road, we would use a road panorama background, four fields in length, and a complete sequence of a walk, which is fourteen drawings.

These fourteen drawings are all painted in the center of separate and respective "cells," each registered in sequence to the preceding one. There are now fourteen "cells," each with a character in the same position on each "cell," but each succeeding "cell" has a different form of the character. When photographed in sequence one after the other, the result will give the movement of the character walking in one spot. However, when the background is moved in the opposite direction the character appears to be walking forward. Repeat this sequence as often as is necessary to get the character into the next scene or to the desired place on the background.

"Cell" number one is placed over the background with the character at the left end of the background and facing to the right. A picture is taken and the background is moved a sixteenth of an inch to the left with each succeeding change of the "cells." This gives the impression that the character is walking to the right. It is practically the same system as the treadmill with the rotating backdrop that was used in the days of the old melodrama, when the "heavy" chased the heroine across the meadow or down the lane.

With this system, the fourteen "cells" can be used in sequence with many different changes of background. Speed may be obtained by moving the background in longer movements and by

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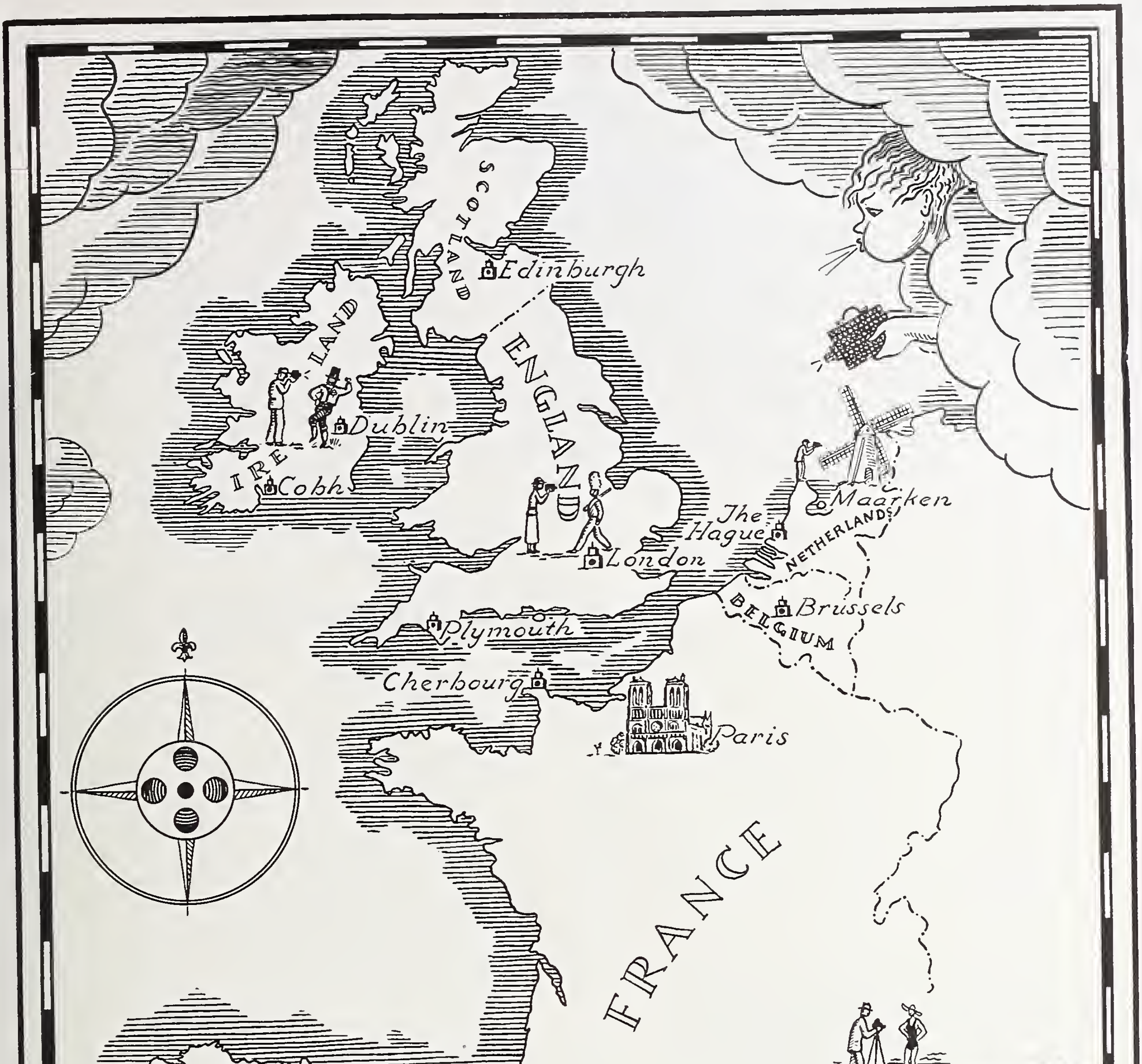
Figs. 7 and 8 show how the run of the dog is animated on one set of "cells" and the monkey on another. The two celluloids are combined as illustrated in Fig. 9.

Figure 6



WHAT does this cine map recall? What new movie stunts did you learn when you visited Belgium, England, France, Ireland, The Netherlands, Portugal, Scotland, Spain and Wales? MOVIE MAKERS wants to know. We plan a composite cine guide for those countries—to be published in these pages as soon as you—and ourselves—can write it. Will you help other filmers who will cover this ground by telling them how to get top hole movies of these countries? It will be a labor of love, as no payment will be made, although every suggestion we use will be credited to its maker. We want new technical wrinkles—ideas for sequences—a word about extra good cine subjects—fresh angles for old scenes. Write to the Editor, MOVIE MAKERS, 105 West Fortieth Street, New York City.

Ewing Galloway

The lens sees this view upside down and right for left

Things people ask us

ROY W. WINTON, ACL

IN DECEMBER Movie Makers appeared the beginning of the record of a conversation between the writer and a friend who did not understand the first thing about photography and movie making. This record was presented as of possible value to other amateurs who have to attempt a conversational exposition of how pictures are made by means of photographic emulsions. In this number of Movie Makers the record is continued.

So far, so good, but what's all this about pictures being upside down and reversed from left to right? My eye sees right side up and photographs are right side up.

As a matter of fact, your eye actually sees upside down—that is, the retina image is upside down. But, because of some arrangement of nerve ends, or nerve sensory transmission, because the brain checks sight by the other senses or because of some other mystery in the human anatomy, the world we see corresponds to the world in which we live, as far as upside down and right and left are concerned.

This complicated performance of the human brain makes it necessary for us to take what the camera gives us—the same thing that the pupil and lens give the eye's retina—and to transform it by some method so that it will be reversed up and down and left and right to agree with what the brain has produced in human sight. Fortunately, the method used to do this is also needed for another purpose, which is to provide a picture on a piece of paper that never went inside the camera. Remember that so far we have a light tight box, a hole and a silver coated piece of celluloid inside the box. Opening the hole to the light affects the silver salts, and the beginnings of a picture are made. When we take out the piece of celluloid, either in darkness or in a light that will not add any more effect to the silver—known as a "safelight"—and when we give it the chemical treatment—known as "developing"—we bring out the latent image on the piece of coated celluloid. But, by and large, it is a pretty cockeyed image. Not only is it upside down and left for right, but its blacks are white and its whites are black. This is because the strong light rays and the later development have blackened the silver wherever these strong rays affected it. Weaker rays blackened it less and it is not blackened at all where no rays struck it. In the developing, the blackened areas remain on the celluloid and the unaffected areas are removed, so that our piece of coated celluloid is pretty much the opposite of what the brain has told us is the actual appearance of what we have photographed.

More about how to satisfy curiosity of puzzled friends

This result of our photographic magic would be very unsatisfactory, if nothing more could be done about it. But, as you know, when you see a photograph, you generally see it on paper and you hear it referred to as a "print." It corresponds, as to top and bottom, left and right, black and white, with what your brain tells you was the view photographed, if you saw the original view. This printing is merely a duplication of the original silver blackening process which took place in the camera and the later development. The original piece of celluloid, which we call the "negative"—because it is the opposite, in so many respects, of what our brain tells us it ought to be—is used to filter the light that is allowed to reach a piece of paper coated with another silver combination. This paper is exposed, under controlled conditions, to the light that is allowed to reach it, with the result that, on it, the dark places on the negative have held back light and the light places have admitted light. When the paper is later treated chemically, the original picture that came out of the camera is reversed, on the paper, so that the dark area, as the brain translated it, is dark on the paper, the light area light and, because the negative is laid against the paper, the top has again become bottom and the left has become right and, at last, we have something in our print that corresponds to what our brain gave us. I should say, before we get any further, that celluloid is not the only material to be coated with the silver salts, or "photographic emulsion," as it is called. A great deal of photography is done on glass plates coated with this emulsion. They are bulkier and more breakable, so that more pictures are made on "film" as it is called rather than on "plates."

But you forgot something in all this heavy business of trying to be untechnical. How about the lens? You can't take pictures without that.

Yes, you can, but generally you don't. The pinhole in the camera will do the trick, just as

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New wrinkles on newsreels

EPES W. SARGENT, ACL

Veteran cine maker offers experience to amateur filmers

NOT many amateurs are interested in making films that are exact counterparts of the theatrical newsreel, because individual movie makers lack the facilities for speedy production which is the essence of the newsreel idea. The element of greatest importance in newsreeling is timeliness. But, unless you devote yourself wholly to the production of photoplays, you will be the possessor of numerous clips which are practically newsreel units, lacking only the timeliness. You can assemble this material in the newsreel style, making a picture which contains a single subject or one in which the same 400 feet are devoted perhaps to ten or twelve related or unrelated subjects.

Whatever film footage you have, make a study of the newsreel technique. See the same reel more than once. On the first run, spot what you wish to study more closely.

You will find that a newsreel contains from eight to twelve different topics. If you are working with the silent camera, disregard the running fire of comment. Much of the material you see is silent film that has been post recorded, merely to live up to the billing of talking pictures. You will discover that the film is likely to open with a "spot news" idea and close with a clip selected more for its dramatic than its news value. If it has news value, so much the better, but it must be dramatic, exciting, moving. It corresponds to the climax of a photoplay.

You will notice that, after the first clip (clip connotes a sequence rather than a single cut of film), there is a slight drop in the value. That first clip is to arrest the attention. Then follow the other subjects in the order of their importance. You will note that the fourth clip is pretty likely to be something that causes a laugh. It may not have immediate news value, but it will be interesting. Thousands of feet have been made of baby chicks, litters of puppies and men who can blow smoke out of their ears.

This is to space the "spot" stuff. It serves the same purpose as comedy relief in the dramas. It prevents the film from going ahead so fast that it is not possible to maintain the accelerating tempo to the end. Some of the current newsreels have dialect narrators to get a brief laugh.

You will find this treatment repeated two or three times during the longer reels, and always with the same purpose. Very likely you will find a fashion show just before the climax. That quiets the mind and makes the final smash just that much more important.

Another thing you will find is that there is a variety of shots. A newsreel is not all long shots, nor all closeups and, by the same token, it is not a "1-2-3" sequence of distant, medium, closeup—distant, medium and closeup. The relative balance is preserved. but it is shuffled about to avoid monotony.

Supposing that you decide to make up a reel along these lines, first you would look over and evaluate your material. The success or failure of a reel depends upon three factors:

What to put in.
Where to put it.
What to omit.

Possibly that order should be reversed, for often the success of the reel is more dependent upon the omissions than the insertions. To paraphrase an old copybook maxim, "Learn to say no—to yourself." Have the mental and moral courage to be discriminating.

One news assembly I looked at recently had a duplicate clip. It really was not an assembly. The indolent cameraman took 200 feet of a subject and joined the scenes. The duplicated scene occurred perhaps fifty feet from the first instance. The explanation was that there was a better light the second time that the shot was made. "Then why not cut out the other?" "Aw," was the response, "the reel is too short as it is." It was not. It was about forty feet too long. Length should be determined by value rather than the tape measure. This chap had 200 feet of film but he did not have a picture. He was imposing on his friends in asking them to look at, not to say admire, it.

When you start to make a compilation, remember that you really owe it to your friends to be as interesting as you can. Work with that idea in mind.

If you film and edit the picture along the right lines, you should have variety. For example, should the subject be a circus parade, you will have the head of the parade coming toward you and you will have the calliope, which generally tails the procession, going away from you. In between, there will be interesting bits—an animal den with the trainer inside; the "knights and ladies on gaily caparisoned steeds," to quote from the bills: some of the clown stuff; the bandwagon. You can vary the scenes and make them alternately impressive and intimate. If you have a comedy bit, stick that in. If you lack a laugh, make one with a subtitle such as, *Three elephants—one up on Noah.* This would

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Attractive family clips will fit in amateur newsreels

H. Armstrong Roberts

The collegiate camera

ORMAL I. SPRUNGMAN, ACL

WHILE most of us worried along through college with box still cameras and, at best, movies in black and white, today's incoming freshman has at his bidding amateur movie cameras capable of doing theatrical tricks, films with faster emulsions, filterless color movies and portable sound equipment.

It is not easy nor desirable to develop a scenario covering the whole of a four year period, since unforeseen changes can disrupt the most carefully laid plans. Naturally, the best filming campaign would be one which conforms to the routine of college life, depicting events truthfully in chronological order. This does not mean that your college film will be orderly. On the contrary, it is likely to result in an interesting hodgepodge. (I refer to a mixture of subjects—not a confusion of scenes within sequences, for the latter is never interesting.) Moods and settings change, new friends pass in and out of the picture. The campus itself lifts its colorful face from time to time and the conglomerate, never ending parade of studies changes with the seasons.

Try to inject the spirit of restless pursuit of education into the tempo of your film. Of course, no two pictures will be exactly alike. While your particular viewpoint may prompt you to allow more footage for sports and non academic subjects, another student may look upon the quiet and more artistic phases. Both pictures will unfold individual impressions of campus life. Each will have merit.

Actual filming may begin at home and sequences may show frenzied preparations for leaving and the ride down to the railway station. Or the opening may take place on the campus itself, where anxious crowds are milling about, registering for classes and engaging in Freshman Week functions. Such movement will give you a splendid chance to introduce an extreme long shot of the more picturesque buildings, closing with near shots of a line of new students. Here you can hand your camera to a nearby classmate with instructions for him to shoot a short length of you in line. Even though you will be doing most of the filming, your occasional appearance in the picture will convince an audience that you have a part in all the activities.

Prexy's welcome to the incoming group at an outdoor convocation will offer an opportunity for cine studies. Next, run off a few feet of a campus book store sign and, in the following shot, reveal students passing in and out with books under their arms. Bring in a closeup of several texts to show the initial subjects which you are studying. To give diversity to your straight scenes, stand well inside of a dark hallway and photograph students as they open the massive doors and enter the building and are silhouetted momentarily against the bright rectangle of light.

Minimize the need for titles by substituting closeups of pertinent signs posted about the campus. A near shot, for instance, of a placard announcing the season's first football game can be followed by a long shot of the stadium, medium shots of the crowds and sidelight scenes of popcorn vendors, balloon salesmen and congested traffic. Don't miss the tossup, the kickoff and, by all means, the season's first touchdown.

How it can follow the undergraduate through four years

The freshman sophomore scrap, with its hair pulling, clothes ripping, hose "dunking," tug of war, will provide some excellent impromptu action. Look for unusual angles, prepare yourself for anything, but watch the safety of your camera!

Homecoming is an event where color film can be used to good advantage. Sprightly dressed graduates, campus buildings bearing streamers and welcome signs and the reds, blues and greens of gayly decked fraternity houses make colorful movie fodder to contrast with black and white reels. Thread a roll of supersensitive panchromatic film into your camera on the eve of the bonfire and snatch some shots of the "pep fest" in action, with crowds moving about between fire and camera and jumpingjack cheer leaders swinging their arms.

Spring drill inspection, with its beating drums, marching feet and stern faced officers, should not escape the lens of the movie making collegian. Climb atop a campus building for a long shot of the parade and, while there, employ a telephoto lens to bring the band up close. Return to level shooting and get closeups of pressed uniforms, shiny brass and polished shoes. Don't forget, in filming the parade, to get it always at an oblique angle to the line of march, never across the lens. Pick out amusing facial expressions on officers and cadets. Here, again, the movie maker can exercise his ingenuity as a film editor by cutting his scenes to fit the cadence. In other words, the toe tapping audience should be able to follow through the entire inspection without missing a step. Of course, this novel effect should not be overdone.

When a new campus building springs skyward, the event should be filmed. Start with a closeup of an architect's drawing or a blueprint held at arm's length by the foreman on the job. After the camera motor is started, advise him to roll up the sketch slowly, thus revealing in the distance the fingers of steel sprouting out of the ground where the structure is being erected. To maintain accurate focus, turn the lens barrel quickly to compensate for the sudden shift from closeup to long shot.

Like the newsreel photographer, always be

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Colleges offer the best opportunities for sport studies

H. Armstrong Roberts

Critical focusing

Current theatrical pictures reviewed for movie makers

The film, "Mutiny on the Bounty", has fine ship studies

Metro-Goldwyn-Mayer

"Mutiny on the Bounty" ■ Metro - Goldwyn - Mayer. Here is a picture which is first class entertainment and which will command any movie maker's respect. It presents the successful solution of many technical difficulties and it offers a large number of cinematic effects, yet its mechanics are never apparent.

Ship shots: Director and cameramen have taken full advantage of the Eighteenth Century man of war which was reproduced for the picture. There are many beautiful and dramatic shots through the rigging and of the ocean with portions of the ship and its sails in the foreground. Notable is the sequence which depicts the young officer climbing aloft during the storm, while shots of the sailors unfurling the sails, as the ship gets under way, are almost as effective.

Sea scenes: Few cinematic studies of tragedy at sea are as convincing as the representation of Captain Bligh and his crew weathering the storm in an open boat.

Lighting: This film offers the cine student an extensive range in the field of lighting technique. From the darker interior scenes laid in the ship's brig to the high keyed studies in the sun drenched tropical islands, the lighting is uniformly well handled. Sequences are so matched that the shift from one density to another is scarcely noticeable, and yet the lighting invariably interprets the mood of the tale.

Composition and portraits: In a number of instances in this picture, the closeups and semi closeups are composed with care and skill that an individual movie maker might well strive to emulate. The background of the ship, of course, offers special opportunities for creating effective portrait compositions, but the same successful treatment also marks this type of shot made on land. For example, a scene on the island, showing Christian lying in the grass, was filmed from above and at an angle that added interest to the picture without making it too apparent that an unusual viewpoint was selected.

Cinematics: To symbolize the deep stirring of Christian's emotions as he first kisses his Polynesian sweetheart, this scene dissolves into a shot of the racing seas. This latter picture dissolves back to a shot of the lovers, the treatment implying a lapse of time. This handling is easily possible in amateur dramatic films.

"The Thirty-Nine Steps" ■ Gaumont-British. *Suspense:* In the opening sequences of this successful thriller, director Alfred Hitchcock has contrived to give a lesson in suspense building which is worthy of careful study by every aspiring amateur film producer. Basically, he was faced only with the problem of imparting to the audience certain introductory information as a beautiful and mysterious international agent tells it to an utterly strange young man with whom she has just fled from a London music hall brawl. But dramatically, and artistically, the director knew that he must establish as well the whole sinister, threatening mood of the plot which he was unfolding. How he does this with a striking counterpoint of levity and intensity in the business of their conversation is a spine chilling delight to witness. The shrouded, mysterious flat where they go to talk, the deliberate and nerve tensing slowness with which her story develops, the strangely ringing telephone and many other simple but shrewd devices all serve to key up an audience to the desperate and threatening mood of the story.

Humor: In a plot of such gripping intensity as this one is, certain moments of relief are obviously indicated. One of the simplest and most effective occurs in the midst of a stunning chase throughout the length of an English express train. When the string of pursued and pursuers reaches the dining car, one after another just misses upsetting a tray jealously guarded by one waiter. Finally, when you feel sure that the waiter and his tray will come through intact, the last man gets him and the tea service crashes. Here is the age old laugh getter—a catastrophe is threatened time after time and is each time averted, only to happen after it would appear that danger is past.

"Barbary Coast" ■ Samuel Goldwyn-United Artists. *Opening:* This department has commented before on the value of an incoming ship as the introductory setting for a photoplay. The device has the dramatic value of bringing the characters to a new setting at the opening of the film and implying to the audience that new developments will take place automatically. The introduction here is exceptionally well handled, and the use

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Ewing Galloway

The best position for a camera is a point below a turn

Ski shots

EDWIN SCHWARZ, ACL

THOSE who live in the snow belt country have always had all the opportunity that they wanted for filming winter activities. But, this year, a large new group of enthusiasts will take to the field, via the now well established snow train services from many large cities in the East. Here is a new sport, brimming with fun and bursting with good filming opportunities.

Perhaps you will want to build up a dramatic introduction for your first ski picture. The opening sequence might show the husband hurriedly entering the kitchen where the wife is busy cooking the evening meal. He shows her an announcement of a snow train for the coming Sunday. She counters with the statement that she noticed some stunning ski costumes in a current magazine. She gets the magazine, while a closeup of one of the pots on the stove shows that dinner is in progress. The couple glance over various advertisements of ski costumes and equipment. A closeup of the stove shows that the pot now is sending up a column of smoke. Next a closeup of the wife shows her sniffing the odor of burning as she is still turning over the pages of the magazine. Then, a scene of the pot being moved from the stove to the waste can and a close shot of the burned food would tell the story. End the sequence with a shot of the wife opening a can of beans and the husband still reading the advertisement. Now fade in to a shot of a store window displaying ski equipment. This can best be taken on a Sunday morning or at a time when there are few pedestrians around. If your camera permits rewinding the film, then lap dissolve to a scene showing the husband unpacking ski equipment or winter sweaters and mufflers.

You may have ideas for the introduction to a skiing film that will better fit your conditions, but, in any event, you will want to include the last minute preparations at your home before leaving for the train. These can be taken before the actual trip. Follow this with a shot of the skiers arriving at the station and finally boarding the train. Those who have to use the large railroad terminals will find insufficient illumination for successful pictures. Therefore, take these scenes at one of the stops on the way to the ski hill, where an open station will provide ample light. Take a few feet of the engineer as he patiently waits for the signal from the conductor, follow this with the movement of the drivers of the locomotive, the steam emerging from the cylinders and perhaps the tolling of the locomotive bell. Such scenes may be made actually after you reach your destination. The audience will not know the difference if the views are close enough.

Shots on the train itself are not as difficult to take as it might appear, because on a bright day the excellent reflection of light from snow covered fields provides ample illumination inside the train. When the sun is shining, a diaphragm opening of *f*/2 or *f*/2.9 (for black and white) will be found sufficient for average train interiors. However, special effects require different settings. For instance, if you wish to have a skier silhouetted against a train window behind which is a moving background of snow, it will be necessary to focus on the subject but to expose for the background. This means that an opening of *f*/8 or *f*/11 will be sufficient.

Do not forget the intimate shots of the diversified activities of the skiers on the train. Some will be playing cards and others will be watching the scenery, chatting or smoking. As the train nears its destination, you will find many of the passengers waxing their skis in the warm atmosphere of the cars. You can photograph this as well as the other preparations—gathering equipment and putting on additional clothing. Follow this sequence with shots of the passengers getting off the train and walking alongside the cars. Closeups of the skiers' feet, taken at twelve frames a second, or a low angle shot of many feet walking down the path leading from the station, will give an impression of the rush to the fields.

Now, before you continue to the ski hill, is the time to prepare for those engine shots. Find out when the train pulls out for the necessary reversal of the locomotive so that you can return to get shots of the drivers and the car trucks as they pass the camera, as mentioned above.

Next, you will make views of the members of the party fastening their skis or snowshoes, adjusting their caps and gloves and tidying themselves before they start their day of fun. Now follow this with a beginner taking a spill and then, in a closeup, show how his clothes are disarranged. The futility of the fussy preparations will at once become evident. Start off the activities on the ski hill by filming some of the beginners, as they timidly climb the gentle slopes, and then spend some time to discover the place where most of them fall. Take the necessary camera position and secure at least two good falls, shooting as long as necessary to get them. You will be repaid for your time and film, since a good fall invariably produces a good laugh. Always be on the lookout for the little personal touches that give char-

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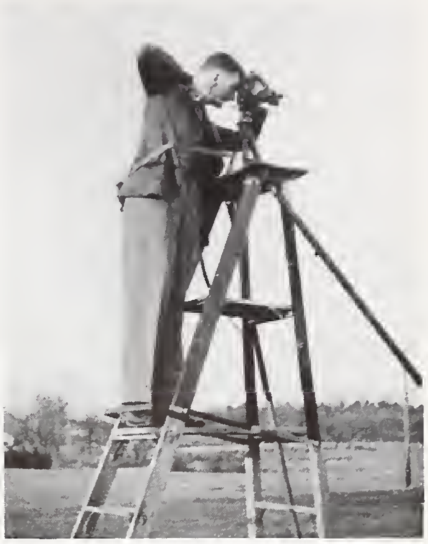
What may go into a reel of chief of cold season sports

The clinic

FREDERICK G. BEACH, ACL

Filming tower ■ The necessity of a high vantage point for football and other types of athletic filming led Russell H. Kettell, ACL,, to design and have made a special camera stand or filming tower. A large folding ladder formed the basis of the stand which is capable of holding both cameraman and camera aloft over the heads of spectators. Provision is also made for an assistant who aids in changing focus. The whole device can easily be folded for transportation on the running board of an automobile. Mr. Kettell previously had designed a football filming tower, but the new portable version, illustrated at the right, was constructed in order to provide a facility for filming away from the home field.



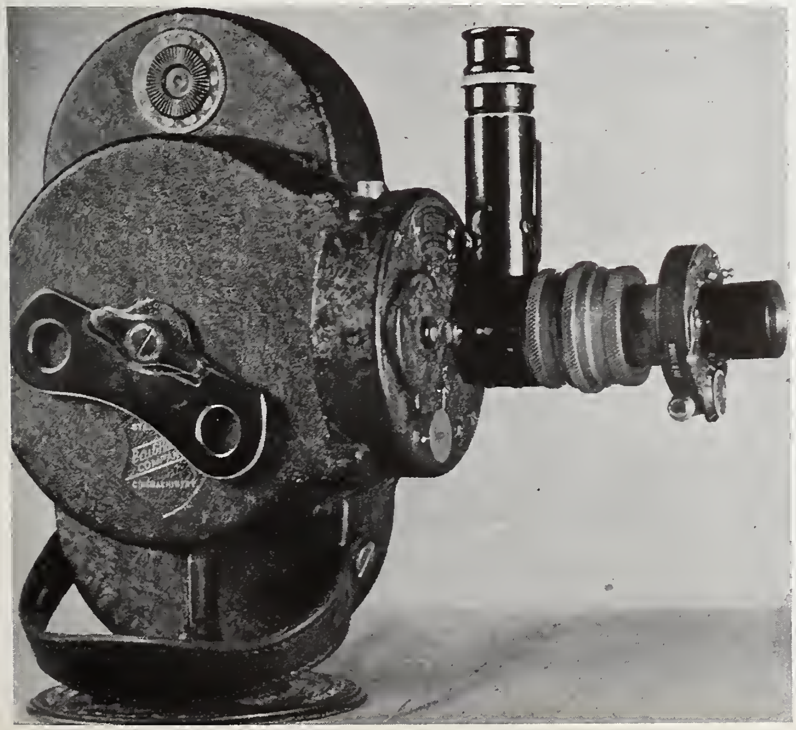
Walter Gierasch

Homemade telephoto ■ A very serviceable telephoto lens recently was assembled by using a three inch still camera lens mounted in a tube which could be screwed into the lens opening of a standard 16mm. camera. The tube was designed to incorporate a prism which can be slid into the axis of the lens for critical focusing and which can be removed when the picture is to be taken. The illustration below shows the manner in which the outfit was assembled by a local machine shop, in accordance with the directions supplied by R. E. Hammersberg.

Blotter screen ■ A serviceable small screen for home use can be made at a very low cost with blotting paper. A piece of plywood is used for the backing and a sheet of plain white blotter is fastened to this by means of gummed tape placed along the edges. Light picture frame molding, painted dead black, should be used to finish the edges. and the usual screw eyes and picture hanging wire will provide means for supporting the screen on the wall. If desired, legs can be attached so that the screen may be set upright on a table.—*Carlyle F. Trevelyan, ACL.*

Above, a portable cine tower; below, a home built lens

R. E. Hammersberg



An editing guide ■ In order to aid in properly balancing the length of scenes with regard to getting a smooth tempo on the screen, I have marked off a scale on the front edge of my rewind. The marks indicate several spaces, each equal to sixteen frames of 16mm. film. With this scale, I can quickly measure the number of seconds that any scene will run. It is especially helpful when working on a film to be used with a musical accompaniment, played on records.—*B. S. Mothershead, ACL.*

Color titles ■ The small metal titlers offer possibilities for making fine color titles. Pictures cut from magazines and colored postcards form the best backgrounds, and the lettering is best done in white ink with a fine pen. When using Kodachrome film and the flood lamp filter, the exposure with two flood lamps placed in tin reflectors of average efficiency, on each side of the camera, will be approximately *f*/5.6 at normal camera speed.

8mm. closeups ■ The fascinating hobby of filming extreme closeups is open to every owner of the Ciné-Kodak Eight Models 20 and 25 if he will purchase the regular Kodak Portrait Attachment No. 1 which is made for still cameras. The use of this lens will allow closeups to be taken at distances from two to four feet with satisfactorily sharp results. For closer shots, the regular Ciné-Kodak Titler works very well.—*Frank C. Stroh, ACL.*

Lighting ■ A common mistake in indoor filming is placing the lights so that only a small area of the subject is illuminated while the rest is given little or no light. The best effects are secured with a good overall lighting so that a satisfactory exposure on the general scene may be obtained. One helpful way of securing this illumination is to place flood lamps in regular lighting fixtures. both overhead and on the wall. It often happens that floor plugs are in one circuit and other room lights in another. By splitting the load between the circuits, the danger of overloading one of them can be avoided. It is not wise

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Technical comment and timely topics for the amateur

Lights for industrials

ARTHUR A. HEBERT, jr., ACL

THE increasing use of 16mm. film for industrial pictures has developed a technique for lighting interiors that is more extensive in scope than that which is used by the home movie maker. Yet, it is surprising to see the results obtained by relatively simple equipment and the proper handling of the sets. Lighting is without doubt the most important part of industrial filming, and the movie maker who would make serviceable pictures must pay careful attention to this branch of the work.

The industrial filmer must have ample lighting equipment. In fact, one could almost say that it is impossible to have too much, especially when working with large areas. The rule that light decreases inversely as the square of the distance becomes tremendously important in medium and long shots in factories and plants. Fortunately, Photoflood bulbs are quite efficient and are so easily adapted that the problem is not as great as would first appear. Any regular light socket may be used, thus permitting the effective distribution of lights around the scene. Reflectors should be used to increase the efficiency of the lights and also to shield the lens from direct rays. Light, "clamp on" reflectors which can be placed on any light bulb are a great help and are very inexpensive. The main object is to flood the set or scene with as much and as soft light as possible. Soft light is important if detail is to be recorded and, if the scene has much dark material in it, more light will be required because of the additional absorption. The small clamp reflectors, of course, are not suitable as reflectors for main light sources. However, they may be used to shield Photofloods within the scene itself. The ordinary sixty watt bulbs, which may be in the scene, do not need to be screened from the lens except when they are on the very edge of the frame.

With lighting, one can emphasize the points of interest

Types and methods of using lamps in practical filming

Ewing Galloway

The use of Photofloods for the main lighting units calls for a polished metal or silvered glass reflector. These types are the most efficient and, while they would normally be called "hard," the frosting in the Photoflood softens the light so that the polished reflector is practicable. If clear glass bulbs of the projection type are used, either the reflector should be frosted or the light should be softened otherwise. The industrial movie maker should be equipped with at least six of these units in order to have sufficient light for the average run of scenes. Of course, more will permit stopping down the diaphragm and will give a bit more freedom in lighting effects. Perhaps more important is the fact that extra light will be helpful in bringing out detail of dark objects.

Photoflood bulbs draw approximately two and two tenths amperes each and, while the average lighting circuit which is fused for fifteen amperes will carry six lamps, it is desirable in industrial work to draw current directly from a switch box or distributing panel through a special cable. The plant electrician usually can fix up such a cable and can see to hooking it up properly. It should be long enough to take care of the greatest possible distance from the power connection to the scene of shooting. If you are not using the full length of the cable, do not leave the unused part coiled closely, as it will set up inductance, causing a voltage drop, and in addition it may get quite warm. A two conductor cable of number fourteen wire will handle twenty amperes. If the demand is greater, a three conductor cable may be used, one wire being a neutral. This will take care of about forty amperes safely. Several outlets should be spliced on the end of the cable, and three way plugs can be used in these to connect the lighting units.

The reason for this special cable is to provide power for the lights with no danger of blowing fuses and, by using heavy enough wire, to eliminate the voltage drop which takes place when too much current is drawn through a circuit not designed for the load. A number fourteen wire will give a voltage drop of about one and a half volts for each 100 feet.

There should be included in the lighting equipment at least one hard light, such as a 500 watt T 20 projection bulb. This can always be softened if necessary by the use of a double thickness of white cheese cloth, a drawing cloth or even tissue paper. The purpose of this hard or raw light is to touch up, to "spot" or otherwise to "snap out" highlights and to give modeling after the whole scene has been flooded with soft, even light. Of course, when working in closeups, a raw light might burn through too much and cause the loss of highlight detail. In this case, soft light is used on both sides and the modeling is obtained by having one light closer than the other.

By the proper use of light, deficiencies in composition can be offset, for the highlights and shadows can be so planned as to focus the attention of the audience on a particular part of the scene. Conversely, the improper use of light will distract the audience's attention from the part of the scene which it is supposed to watch.

It should be kept in mind that the highest light will get the attention of the eye first. To keep the attention confined to the region immediately around the highlight, it is necessary to have composition which will keep the eye traveling around and back to the starting point. It is

[Continued on page 34]

Amateur clubs

JAMES W. MOORE, ACL

Hues for Hartford ■ With a record attendance of 125 members and guests, the Hartford Cinema Club recently devoted an entire meeting to the subject of Kodachrome, in a program of discussion and demonstration which was carried on under the guidance of Herbert H. Johnson, of the Eastman Kodak Company, Rochester, N. Y. *Bermuda*, *The Growth of Organic Crystals* and *Vacation Days* were the color films which Mr. Johnson used in illustration of his brief formal discussion of the subject. Following them, the meeting was turned over to an active question and answer session, which was reported as of unusual value to the members.

At an earlier gathering of this veteran movie club, the program was devoted to a screening of members' films, as follows: *Through Gaspe to Northern Newfoundland*, 400 feet, Kodachrome, by Eugenie Williams; *Hartford Tercentenary Parade*, 300 feet, Kodachrome, by Dr. Stowe; *Hartford Parks*, 200 feet, Kodachrome, by Ruth Spaulding and Dorothy A. Bowers; *The Gaspe*, 400 feet, black and white and Kodachrome, by Hiram Percy Maxim, ACL; *The Circus*, 300 feet, Kodachrome, by W. C. Goeben, ACL; *Seeing Scenic Scotland*, 400 feet, black and white, by W. R. C. Corson, ACL; a family film in color, by J. H. Williams.

Contest in Orange ■ In New Jersey, William T. Vanderlipp, ACL, has taken first award in the second annual summer films competition conducted by the Cinema Club of the Oranges, with second place going to Dr. Nelson W. Lockwood, ACL. Their films were, respectively, *It So Happens*, an amusing and well planned film story of sulky racing, and *Autumn Foliage*, a documentary color record of this popular subject. Frederick G. Beach, ACL, and James W. Moore, ACL, of the League staff, were the judges. At a later gathering, Kenneth F. Space addressed the club on the subject of interior lighting and produced on the spot a brief film story illustrative of his points.

New photoplay ■ In Rochester, N. Y., the Flower City Amateur Movie Club, one of the first organized photoplay producing groups of the hobby, has recently completed *Chance*, a two reel melodrama of the gambling halls. Direction and photography were in the charge of Frank J. Buehlman, ACL, with the following staff; Marian Cushing, wardrobe; Norman Coons, properties; Lawrence Martin, story and technical direction; Eleanor Holcomb and Albert Groth, script; Charles D. Snell, titles. Fredda Coons and Daniel Dean played the leads in an able cast which included Clarence Coons, William Cushing, Howard Noble, John Schreiber and Stella Martin.

Atlanta initiates ■ Recently organized, the Atlanta (Ga.) Camera Club already has held the first meeting to be offered by the Cine Division, which will be headed this year by Barnes E. Sale, ACL. Dr. Wallace Rogers is president of the club and J. A. Murdoch is secretary treasurer. Featured on the movie program was a discussion of home reversal processing, by Charles D. Randall, ACL, who screened a 400 foot reel in demonstration of his work in this field. This was followed by a one reel Kodachrome industrial film of the pimiento plant, and the program was concluded with a screening of *Pipe Dreams* and *Valiant Dust*, from the Club Film Library of the League. Meetings of this new club are held on the second and fourth Monday of each month in the Thurston Hatcher studio, of Atlanta. The interest of still and cine cameramen is invited.

Latest news of group activities and photoplays

George W. Colburn

"Ten Easy Lessons" filmed by Cinema Players of Chicago

Boston is host ■ A large and enthusiastic audience gathered in the Palm Room of the Hotel Lenox for the first Ladies Night program to be given by the Boston Cinamateur Club, according to the report of Albert Genaske, ACL, secretary treasurer. After a reel of Kodachrome on the Quabbin Reservoir, by Mr. Genaske, the program was taken over by Mr. Whitehead, local representative of the Victor Animatograph Corporation, who put on a thorough demonstration of that company's sound on film projectors. The annual election of officers will soon be announced by the Boston club as it prepares to go into its fourth year of activity. Semi monthly meetings are held at the Lenox on the second and fourth Mondays.

New in Winnipeg ■ In Winnipeg, Canada, fifteen enthusiastic movie makers have met under the leadership of R. D. Guthrie, of the local Eastman Kodak Stores, and have voted the organization of a movie makers' club. Messrs. Young and Lawson have been appointed to work with Mr. Guthrie in drawing up the details of organization. At the first meeting, which was held in the Winnipeg Y. M. C. A. Building, *Pipe Dreams* and *Ramblings Around Sydney* were screened from the Club Film Library of the Amateur Cinema League.

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Positive title methods

CYRIL PRESGRAVE, ACL

How to make titles on positive and to develop the film

CHIEF among the reasons for advocating positive film for titles is that, by the very nature of the contrasty positive emulsion, the white portions of the projected title are clearer and the black portions more opaque than would be the case with reversal film. Another advantage in the use of positive is that, with this film, it is possible to letter the title card with black ink on a white background. When the film is developed, the values are reversed, producing a white letter on a black background. This procedure is much easier than lettering a black card with white ink. Yet another desirable feature of positive stock is its smaller cost in relation to reversal film. One hundred feet of "laboratory packed" (not on camera reels) positive stock may be obtained for about one dollar. It is true that this does not include developing, but this item of expense is not great. Indeed, the development of positive film titles is so easy that the amateur may handle it himself.

Apparatus, which may be built at home, for developing a few feet of positive film is shown in Figures 1 and 2 on this page. Note that the developing drum may be removed instantly from the shaft supports and that the supports themselves are adjustable in height to take care of the thickness of the trays or the depth of the solution.

Dimensions, of course, will depend on the size of the trays. The following dimensions are for a drum holding ten feet of film and used in conjunction with four by five inch photographic trays:

Base—7 in. wide, 23 in. long of ¾ in. wood; ¾ in. strips are used under the base to raise it from the table.

Shaft supports—(8 required) 6 in. high, 2 in. wide of ¾ in. wood: the ⅝ in. shaft slot is cut to a depth of 2 in., and screw slots are cut at the bottom of the supports to a depth of 1 in. to permit height adjustment.

Drum—two discs of ¾ in. wood, 5½ in. in diameter, support 24 strips of ¼ in. half round molding, 5½ in. long; the shaft is ½ in. in diameter, 11 in. long and protrudes 4 in. from one side of the drum to which it is fixed. Two collars are provided on this end of the shaft to keep the drum centrally located between the supports. A 3 in. handle is fixed to the same end.

Cleats—these are nailed to the base to fix the position of the trays, three of which are used.

The whole should be given two coats of acid proof paint to prevent any chemical action between the solutions and the wood.

Ten feet is about the greatest length of film that may be handled conveniently on a drum without building special apparatus for washing and drying. If longer lengths are to be developed, the movie maker should purchase one of the many excellent film racks on the market.

Figure 1

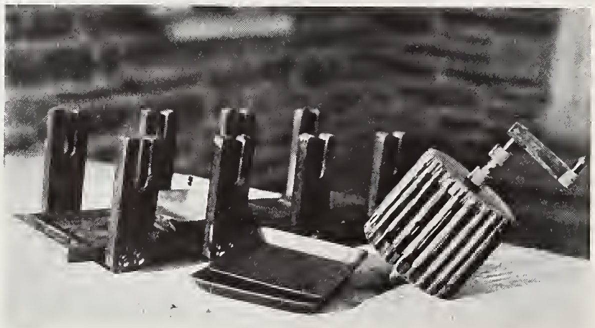
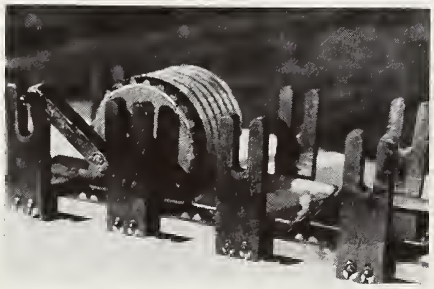


Figure 2



Cyril Presgrave, ACL

A convenient home-made apparatus for developing titles

The kitchen or bathroom makes a convenient dark room. If developing is done during daylight, the windows must be screened with a piece of heavy black cloth, which may be fastened in place with thumbtacks. An ordinary ruby bulb or a small safelight lamp equipped with a Wratten series OA screen gives ample illumination while handling raw positive film. This lamp must be kept at least three feet from the film to prevent fogging. Two or three bowls holding two quarts each should be filled with water for washing the film, and a wire paper fastener, bent in the form of a hook, several rubber bands and some straight pins should be available. A watch should be placed where the second hand is plainly visible under the safelight. A thermometer, a four ounce measuring glass and a stirring rod or spoon complete the equipment.

Set the developing apparatus on a card table which has been covered with a piece of linoleum and several thicknesses of newspaper to absorb any fluid that is splashed. Note that there are four positions for the drum. The first set of supports is for use while winding the film on the drum; the next is directly over the developing tray; the third is over a tray containing plain water and the fourth is over the fixing bath.

For the beginner, it is best to purchase the developer in tablet, powder or concentrated form; it must be a contrast developer. (A suitable formula is given in the League's bulletin on titling.) The acid fixing bath also can be obtained in powder form ready for dissolving.

Place the trays in their respective positions and take the temperature of the developing solution. The film should be developed the exact time recommended for that temperature by the manufacturer of the developer.

Now let us follow the procedure of positive film title making and developing step by step. This discussion will not cover title lettering except to note that black and white values will appear in reversed order on the film and that, therefore, lettering should be done with black India ink on white, unglazed paper.

First, set up the title board. Should trouble be encountered in centering a title properly because of parallax between the camera lens and the viewfinder, the following method will be of service, provided that the camera gate opening is wide enough to permit the insertion of a small flashlight bulb. Place in the gate a piece of matte film such as is used for projection leaders. Focus the lens on the title and then insert the bulb, with wires soldered to the contacts, in the gate behind the matte film. Darken the room and

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Planning home movie programs

PETER A. LeNEVE FOSTER, ACL

A balanced ration of film fare urged for home showings

LAST winter, Douglas Fairbanks Junior contributed an article to the center page of the program at an exhibition of amateur films sponsored by the Manchester Film Society (England) of which he is the permanent vicepresident. Some of his remarks are so apt that MOVIE MAKERS has asked the Manchester Film Society to allow them to be reproduced here.

Mr. Fairbanks said: ". . . To put matters bluntly, the amateur film movement is in danger of taking itself far too seriously and it is rapidly forgetting that, if its screens are really to be as free as it would like to have us believe, then it must find room on them for films of *every* type and stop turning up its nose at slapstick comedies and reels of personal snapshots. . . ."

In other words, Mr. Fairbanks is making a very salutary "dig" at that insufferable type of movie maker whose artistic horizon is bounded by the inexplicable, and to whom any film which is intelligible automatically ceases to be Art—spelled with a very large capital A.

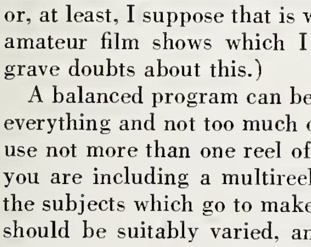
Again, Mr. Fairbanks says, ". . . It does not follow that, because a film is not made for commercial consumption, it need not be entertaining . ." A truer sentence was never written, and I think that these few words are the key to success or failure in amateur movie shows.

When you find your guests yawning next time you give a front room movie show—think of Mr. Fairbanks's words and ask yourself whether or not your show is entertaining, even if non commercial. The chances are that you will find the answer in some other words written by the same gentleman—"(You) must find room on your screen for films of *every* kind . ." How many reels of personal snaps did you show—was it five or six, or did you offer nothing but cartoons or comedies from the library?

"Enough is as good as a feast," said a wise man in days of yore, to which might be added, ". . and too much will make you darned sick." From an understanding of this come the theatre manager's endless pains to keep his movie program balanced.

It is just as important for you, as an amateur, to keep your program balanced. Remember that you ask people in for a movie evening to amuse them and not to bore them to tears—or, at least, I suppose that is why you ask them! (Some of the amateur film shows which I have been to have caused me grave doubts about this.)

A balanced program can be summed up as being enough of everything and not too much of any one thing. That is to say, use not more than one reel of any one type of subject, unless you are including a multireel story film. It also means that the subjects which go to make up the evening's entertainment should be suitably varied, and the order in which they are shown should be intelligently thought out. Avoid putting a reel of personal snaps on immediately after a library release; your own stuff most likely will suffer by comparison. If you must show a cartoon as well as a comedy, don't run them one after the other; put an entirely different sort of film, a travel reel for instance, in between them.



If you are running a reel of baby pictures, don't run another reel of baby animals. That does not mean that a few animal shots cannot be cut into the baby stuff to give point or contrast to the pictures of "our child", but simply that one reel of youngsters, animal or human, is quite enough for one evening's entertainment.

Don't overdo travel pictures, however much you enjoyed that cruise. If you want to tell the neighbors what a good time you had in the Bahamas—well, go right ahead, but don't run away with the idea that also they will be crazy to see your trip to Europe the year before last, Uncle Ned's trip up the St. Lawrence and a bunch of library scenics all in the same evening. It is overdoing one kind of film subject which brings on attacks of mental indigestion to your audience, makes an otherwise good show flop and generally brings both you and amateur movies into disrepute.

Another thing to guard against is the overelaboration in the presentation of your films. You may have a perfectly balanced program and still make your show flop by overdoing such things as colored auditorium lights, organ interludes (from the radio) and fancy main titles for unpretentious personal films. The window dressing may be carried to such an extent that the whole thing becomes a mere stupid burlesque of the big movie mausoleum.

You may have dimmers for your lights, a black border around the screen and music from an electric turntable, but if you go much further than this you are in danger, as Mr. Fairbanks says, "of taking yourself too seriously" and, as Mr. Fairbanks politely refrains from saying, "making yourself look a fool in front of the neighbors."

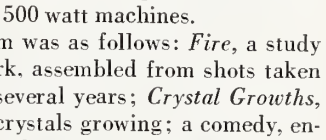
The private house movie show can never hope to compete with the big theatre, and it is far better to try for an intimate, homely atmosphere which the commercial theatre never can hope to equal. This is the path along which success can be attained in home movie presentations, assuming, of course, that the films themselves and the way in which they are projected are up to standard.

Perhaps the details of the Manchester Film Society program, which was held by Mr. Fairbanks to be an almost perfect example of amateur presentation technique, will be of interest. The show was held in the Manchester Central Library in a small, intimate, private theatre belonging to the Manchester Libraries Department, and, apart from dimmers on the house lights, no elaborate methods of presentation were used. The projectors were two 500 watt machines.

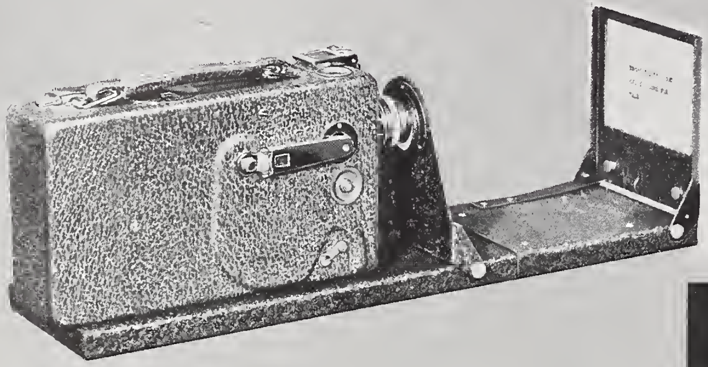
The first part of the program was as follows: *Fire*, a study of the Fire Department at work, assembled from shots taken at odd times over a period of several years; *Crystal Growths*, a scientific film showing hypo crystals growing; a comedy, entitled *Porridge and Penguins*, based on a scenario in the League bulletin, *Scenarized film plans*, and shot at the Manchester Zoo; a medical film, *Surgical Treatment of Paralysis;* a reel of members' personal snapshots. This was followed by a ten minute interval, ostensibly to allow the audience to gossip but actually to give the projectionist a rest.

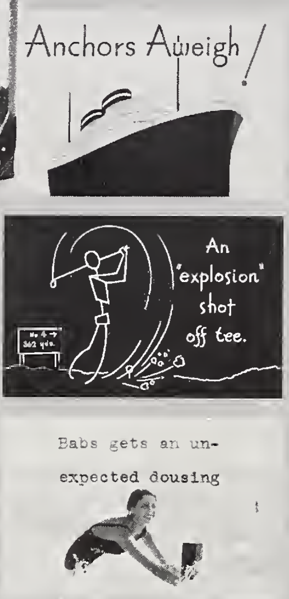
After the interval, a highly dramatic film, *The Five Pound Night*, was screened, and this was followed by a news film, *The Royal Visit to*

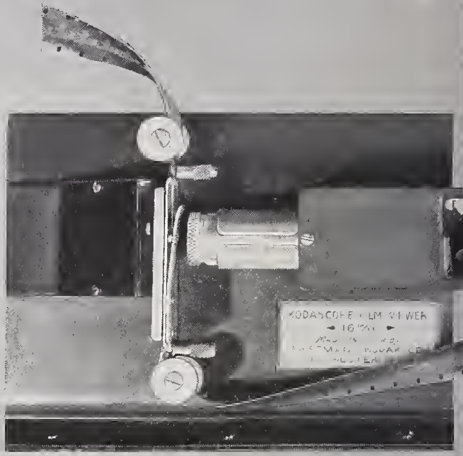
[Continued on page 47]



THE BEST MOVIES




Anchors Aweigh /
An "explosion" shot off tee.
Babs gets an unexpected dousing

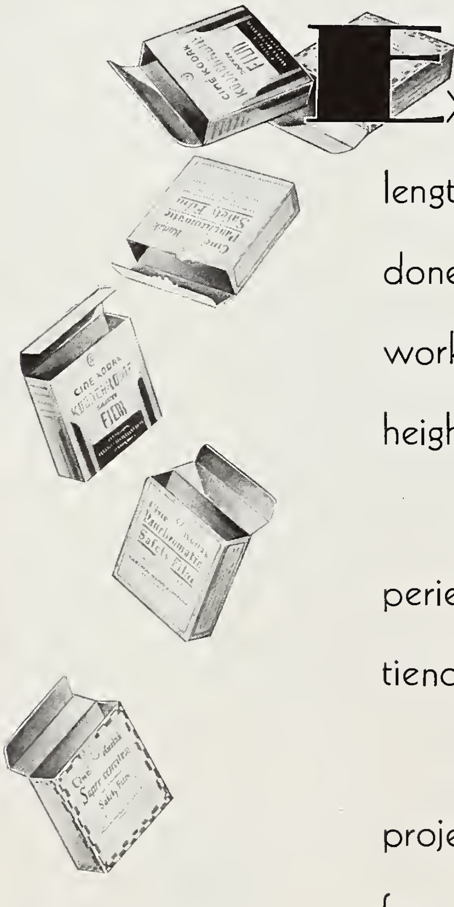


CINÉ-KODAK TITLER

Reduces title making to its simplest terms. With it, you've no need for skill with pen or brush, no worries about focusing or alignment. Simply type your titles on one of the cards supplied with the Titler, center it in the easel, and shoot. Yet, if art titles are your forte, you can make them also — smaller, easier, more accurately. For 8 mm. or 16 mm. Ciné-Kodaks — $6.50, including 100 title cards, typing and framing masks.

KODASCOPE FILM VIEWER

Banishes eye strain from film editing. Plug the View into a light socket, thread the film in the gate, a you've a sparkling, magnified image on the Viewe ground-glass screen. Wind the film forward or ba ward. When you reach a spot for a splice, a cut, o title, you press a lever by the gate and nick an ide tifying mark on the film edge which in no way m images or hinders projection. For 8 mm. or 16 m film — $12.50, with lamp and extension cord.



EXPOSURE, focusing, filter use, composition, camera angles, scene length — no matter how carefully you gauge them, there's work to be done when your films are returned from the processing station. Pleasant work. Profitable work that pays big dividends in considerably heightened screen interest.

The accessories above will be found in the kit of countless experienced movie makers. Inexpensive guardians of your time and patience, they make film grooming as engrossing as taking pictures.

Then, when your movies are ready to show, you'll want the best projector for your own individual projection conditions — and the best for your money, too. That's why wise cinamateurs select one of the three Kodascopes at the right.

ARE MADE...

...*Not just taken*

REELS, CANS, CLIPS

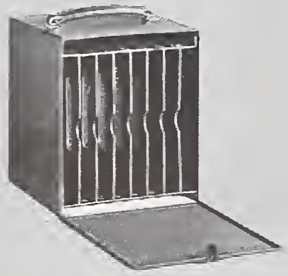
Kodascope aluminum reels require no threading. A marked slot shows you how much footage is on each reel. 16 mm. reels, 75 cents; 8 mm. reels, 50 cents.

Humidor cans contain a humidifying pad. 16 mm. cans, 75 cents; 8 mm. cans, 50 cents.

16 mm. film clips, $1.25 per dozen; 8 mm., 75 cents per dozen.

CLEANING OUTFIT

Edited film inevitably picks up dust particles, fingerprints or oil smudges, and harmful bits of emulsion which should be removed before projection to avoid scratching your film. The Cleaning Outfit, consisting of a soft plush cloth and a four-ounce bottle of special cleaning fluid, makes film cleaning easy. 75 cents.



FILM HUMIDOR

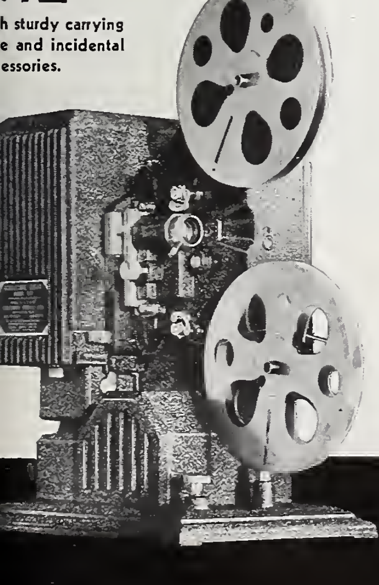
The Kodascope Film Humidor is a sturdily built metal case covered with artificial leather, and has accommodations for eight 400-foot reels of 16 mm. film. A blotting pad in the bottom, moistened at intervals, keeps the film in the proper, pliant condition. Travelers, especially, will find use for the Film Humidor, which is priced at $7.50.

ODASCOPE EIGHT, ODEL 80

de luxe 8 mm. projector, on many unts a miniature of its famous 16 mm. ntemporary, the Model L. Kodascope ght, Model 80, will enable your Eight" movies to put their best foot rward. In operation it merely purrs. pplied with a 300-watt coil-coil lamp d an f.2 lens. Those who desire still eater brilliance may obtain a 300-watt -plane filament lamp which increases umination 25%, and an f.1.6 projecon lens which further increases illumition 40%.

97^{50}

h sturdy carrying e and incidental essories.

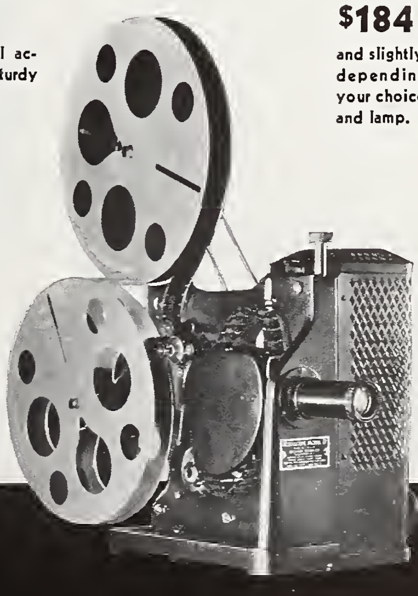


KODASCOPE, MODEL D

This economy 16 mm. projector rewinds by motor, shows stills, projects 400 feet of film with one threading, and can be fitted with extension arms and 800-foot reels for half-hour shows. Threading, framing, focusing, and titling are extremely simple. And there's a bridge lamp connection alternately operated by the same switch that controls projection operation. It is supplied with a 2-inch lens, 400-watt lamp. A 1-inch lens for large pictures at close quarters is optional equipment.

$80

with incidental accessories and sturdy carrying case.

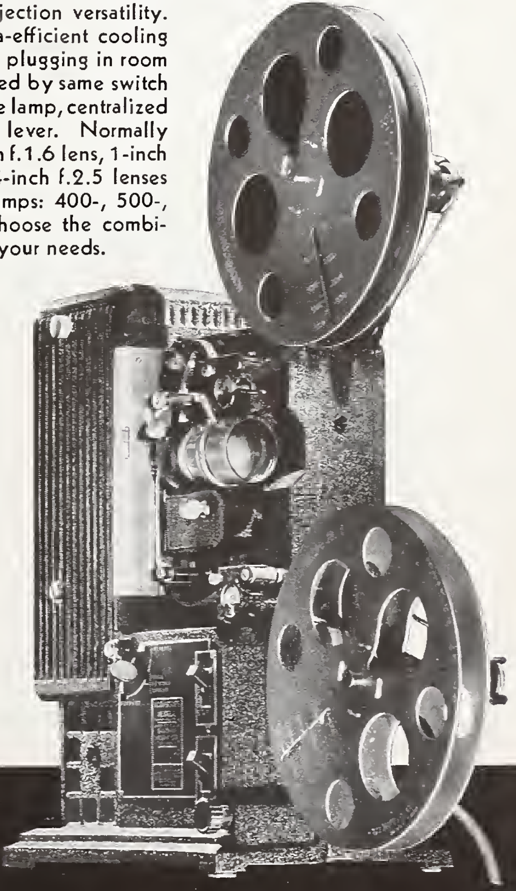


KODASCOPE, MODEL L

Finest of the "sixteens," it encompasses all of the advantages of the "D," goes far beyond it in projection versatility. The "L" has an extra-efficient cooling system, receptacle for plugging in room lamp alternately lighted by same switch controlling Kodascope lamp, centralized lubrication, reverse lever. Normally supplied with a 2-inch f.1.6 lens, 1-inch f.2, 3-inch f.2, and 4-inch f.2.5 lenses are available. The lamps: 400-, 500-, and 750-watt. You choose the combination best suited to your needs.

$184

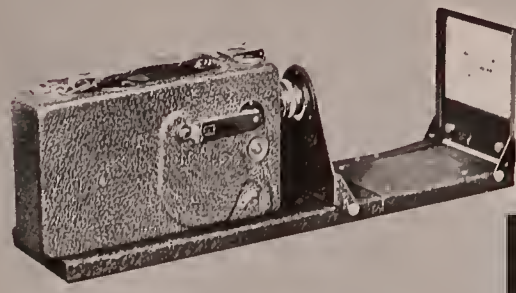
and slightly more—depending upon your choice of lens and lamp.

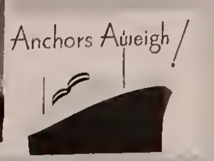


EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

THE BEST MOVIES ARE MADE . . .

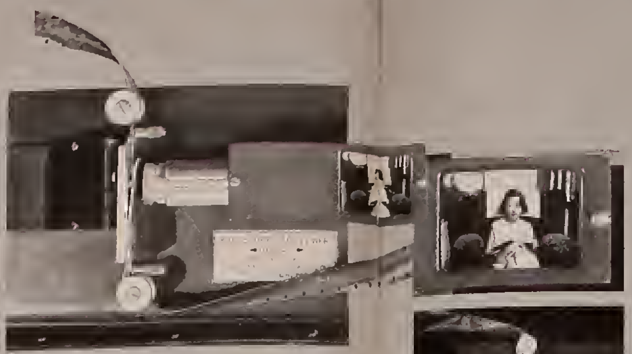
. . . *Not just taken*

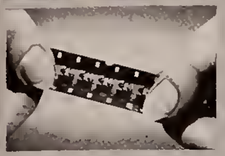



Anchors Aweigh!

CINÉ-KODAK TITLER

Reduces title making to its simplest terms. With it, you've no need for skill with pen or brush, no worries about focusing or alignment. Simply type your titles on one of the cards supplied with the Titler, center it in the easel, and shoot. Yet, if art titles are your forte, you can make them also — smaller, easier, more accurately. For 8 mm. or 16 mm. Ciné-Kodaks — $6.50, including 100 title cards, typing and framing masks.





KODASCOPE FILM VIEWER

Banishes eye strain from film editing. Plug the Viewer into a light socket, thread the film in the gate, and you've a sparkling, magnified image on the Viewer's ground-glass screen. Wind the film forward or backward. When you reach a spot for a splice, a cut, or a title, you press a lever by the gate and nick an identifying mark on the film edge which in no way mars images or hinders projection. For 8 mm. or 16 mm. film — $12.50, with lamp and extension cord.

REELS, CANS, CLIPS

Kodascope aluminum reels require no threading. A marked slot shows you how much footage is on each reel. 16 mm. reels, 75 cents; 8 mm. reels, 50 cents.

Humidor cans contain a humidifying pad. 16 mm. cans, 75 cents; 8 mm. cans, 50 cents.

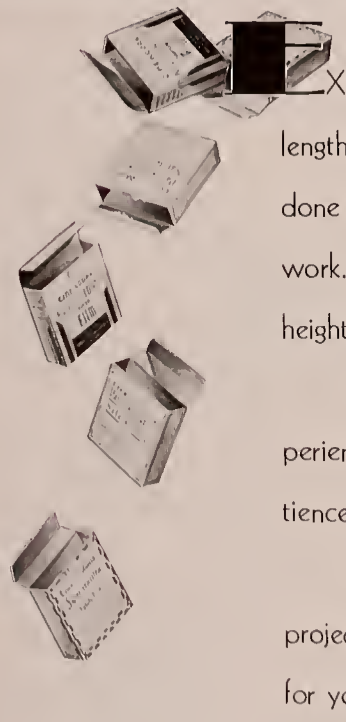
16 mm. film clips, $1.25 per dozen; 8 mm., 75 cents per dozen.

CLEANING OUTFIT

Edited film inevitably picks up dust particles, fingerprints or oil smudges, and harmful bits of emulsion which should be removed before projection to avoid scratching your film. The Cleaning Outfit, consisting of a soft plush cloth and a four-ounce bottle of special cleaning fluid, makes film cleaning easy. 75 cents.

FILM HUMIDOR

The Kodascope Film Humidor is a sturdily built metal case covered with artificial leather, and has accommodations for eight 400-foot reels of 16 mm. film. A blotting pad in the bottom, moistened at intervals, keeps the film in the proper, pliant condition. Travelers, especially, will find use for the Film Humidor, which is priced at $7.50.



EXPOSURE, focusing, filter use, composition, camera angles, scene length — no matter how carefully you gauge them, there's work to be done when your films are returned from the processing station. Pleasant work. Profitable work that pays big dividends in considerably heightened screen interest.

The accessories above will be found in the kit of countless experienced movie makers. Inexpensive guardians of your time and patience, they make film grooming as engrossing as taking pictures.

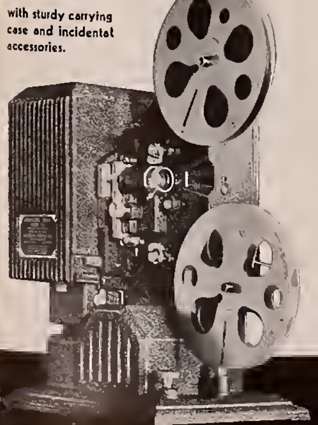
Then, when your movies are ready to show, you'll want the best projector for your own individual projection conditions — and the best for your money, too. That's why wise cinamateurs select one of the three Kodascopes at the right.

KODASCOPE EIGHT, MODEL 80

A de luxe 8 mm. projector, on many counts a miniature of its famous 16 mm. contemporary, the Model L. Kodascope Eight, Model 80, will enable your "Eight" movies to put their best foot forward. In operation it merely purrs. Supplied with a 300-watt coil-coil lamp and an f.2 lens. Those who desire still greater brilliance may obtain a 300-watt bi-plane filament lamp which increases illumination 25%, and an f.1.6 projection lens which further increases illumination 40%.

$97.50

with sturdy carrying case and incidental accessories.

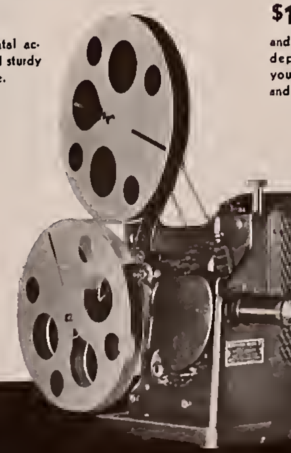


KODASCOPE, MODEL D

This economy 16 mm. projector rewinds by motor, shows stills, projects 400 feet of film with one threading, and can be fitted with extension arms and 800-foot reels for half-hour shows. Threading, framing, focusing, and titling are extremely simple. And there's a bridge lamp connection alternately operated by the same switch that controls projection operation. It is supplied with a 2-inch lens, 400-watt lamp. A 1-inch lens for large pictures at close quarters is optional equipment.

$80

with incidental accessories and sturdy carrying case.

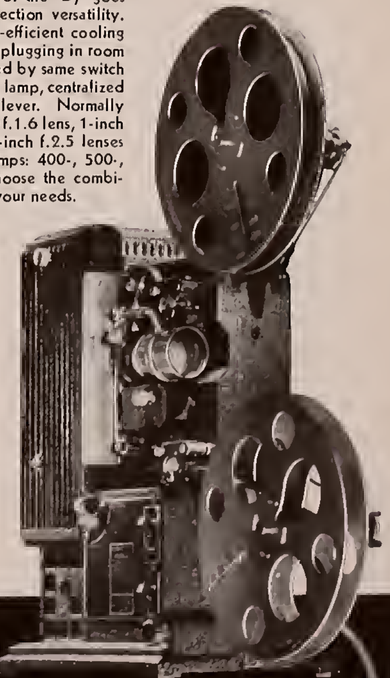


KODASCOPE, MODEL L

Finest of the "sixteens," it encompasses all of the advantages of the "D," goes far beyond it in projection versatility. The "L" has an extra-efficient cooling system, receptacle for plugging in room lamp alternately lighted by same switch controlling Kodascope lamp, centralized lubrication, reverse lever. Normally supplied with a 2-inch f.1.6 lens, 1-inch f.2, 3-inch f.2, and 4-inch f.2.5 lenses are available. The lamps: 400-, 500-, and 750-watt. You choose the combination best suited to your needs.

$184

and slightly more — depending upon your choice of lens and lamp.



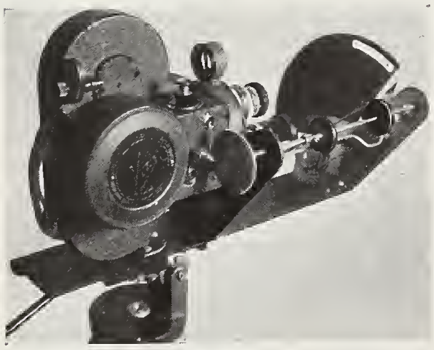
EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

News of the industry

RUSSELL C. HOLSLAG, ACL

Answers the query "What's new?" for amateur and dealer

Wonderlite ■ A new development in incandescent lamps of the overvolted flood type is offered this month to photographic workers. The outstanding feature of these flood lamps is their longer life. The makers claim an average, continuous burning life of five hours. The bulbs, which are of normal size and shape, may be had in two types, the Picture Flood and the Filter Flood. The former is of clear glass, with inside frosting, and it may be used for general, all around work. The bulb of the Filter Flood, however, is made of light blue filter glass, which cuts down on the excess of red and yellow rays, which normally characterize this type of lamp, and thus gives a resultant whiter light of particular value in making natural color movies and "stills" and also when using the non panchromatic emulsions. It is claimed that, since this bulb gives a light which approaches daylight in color quality, its use for interior illumination in color shooting makes artificial light filters unnecessary for all practical purposes. The manufacturer is the Wonderlite Company, West Orange, N. J., which furnishes the following technical data: (1) Picture Flood—total light output, 11,000 lumens; draws 2.7 amperes at 120 volts; effective voltage range, 105 to 120. (2) Filter Flood—total effective white light output, 7,500 lumens, with same voltage and amperage as the Picture Flood. Both lamps average five hours' continuous burning and are inside frosted. According to James T. Carr, president of the company, the development of these new bulbs came as the result of long research in photographic problems.



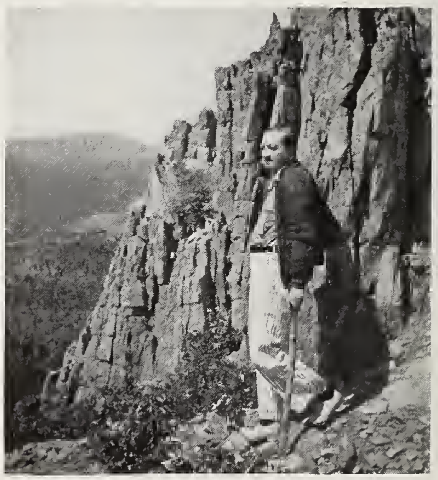
J. D. Cochrane, jr., ACL

Du Morr Radial Wipe device installed on Victor Model 5

Neumade ■ A new and interesting catalog, well bound and of generous proportions, recently has been issued by the Neumade Products Corporation, 427 West 42nd Street, New York City. This firm, which has for years maintained its reputation as a complete theatrical projection room and laboratory supply house, markets many items in the 16mm. field. Such items are rewinders, film splicers, measuring machines, storage cabinets, carrying cases and others. The new catalog will be of interest to 16mm. workers and may be had direct from the company.

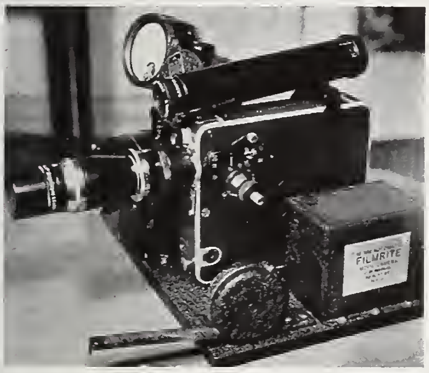
Dr. Earle B. Perkins, movie maker on the Byrd expedition

Magazine Ciné-Kodak ■ The speed with which a magazine loading camera may be brought into action, together with the fact that several different types of film may be used interchangeably, at any time, has made such instruments very popular. Movie makers will therefore be interested in the features of the new 16mm. Magazine Ciné-Kodak, produced by the Eastman Kodak Company, Rochester, N. Y. The magazines, which have a fifty foot capacity, will be available loaded with panchromatic, supersensitive or Kodachrome film. Each magazine bears its own footage meter which may be seen, while in the camera, through a shatterproof window; thus the amount of film exposed in any magazine may be read at a glance, whether it is in or out of the camera. In removing the magazine, a slide automatically covers the film aperture so that not even a single frame is fogged. A finger tab at the top of the camera closes and locks the magazine aperture and a further pressure on the tab sets the mechanism for operation. The new camera has three speeds, interchangeable lenses, a device which prevents accidental exposure when not in use, an automatic shutoff for the spring motor and an interesting device called a "pulse" for timing the length of scenes. The three speeds, eight, sixteen and sixty four frames a second, are controlled by a lever located at the front of the camera. The same accessory lenses are available for the Magazine Ciné-Kodak as for the Ciné-Kodak K and the Special. These are the two inch *f*/3.5 and the three, four and a half and six inch *f*/4.5 telephotos. To change to any one of the four, the standard *f*/1.9 lens is removed by pressing a button. In its place is set a small adapter, which receives the other lenses and holds them in positive, taking position. A single, full vision, eye level finder system shows the correct field for all lenses by an ingenious arrangement whereby a sliding member bearing a finder lens element "clicks" positively into the various indicated positions. The camera also has an attached winding crank, which folds into a recess in the case when not in use. The automatic shutoff for the spring motor stops the camera before the spring power is exhausted, insuring against overexposure. The standard model of the Magazine Ciné-Kodak comes with an *f*/1.9 lens.



Charles Bass, genial head of Bass Camera Co. in Chicago

Ethiopia in 16 ■ A new, single reel, 16mm. motion picture on Ethiopia has been made available recently by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. This timely and interesting film portrays the nature of the country and the daily life of the people and is not, primarily, a war picture. Sound on film and silent versions are obtainable; in the former, an informative commentary is added. The film is a product of Burton Holmes and may be rented through the Filmosound libraries or purchased outright from the company. ■ A new film duplicating apparatus for turning out theatrical release prints of the highest quality recently has been perfected by the Bell & Howell Company in Chicago, and a number of the theatrical film producers of note have already contracted for the installation of these machines. They are known as the Automatic Sound and Picture Printers and are independent of the skill of the operator. Because of their precision construction, it is stated that they will produce 35mm. sound prints of the very first order.



Motor drive, visual focus and other attachments for Pockette in Filmrite unit

Thievery ■ Photographic and motion picture apparatus of all sorts seem always to have been a target for the thief's attention, but the recent outbreak of activity in this direction reported by dealers and amateurs appears to be especially severe. Equipment owners and dealers are warned strongly against leaving their cameras or apparatus unwatched on the counter or in an unlocked automobile.

Biannual ■ It is announced that the film directory, *Motion Pictures of the World and its Peoples*, published by International Educational Pictures, Inc., 40 Mt. Vernon Street. Boston, Mass., will hereafter be issued twice a year instead of once a year as heretofore.

Exposure book ■ A pocket size, complete reference book on the subject of exposure will be a welcome companion on many movie and still photographic excursions. Such a booklet, packed full of information on exposure, the proper use of exposure meters, practical speed values for films and plates, comparison of speed rating systems and other valuable exposure data, is now available from Photo Utilities, Inc., 152 West 42nd Street, New York, at twenty five cents a copy. The author is Joseph M. Bing, ACL, well known in photographic and marketing fields.

Bulb saver ■ A compact little series to parallel switching device, which handles either two or four photographic illuminating bulbs of the flood type, is now offered at a low price by Clargray, 264 Wyckoff Street, Brooklyn, N. Y. Attractively finished, the unit houses a special switch and carries the necessary connecting wires with plug and receptacles. It is called the Gibbs Photoflood control, and its use enables flood bulbs to be burned at half voltage while setting up, thus effecting a marked increase in the lamp life.

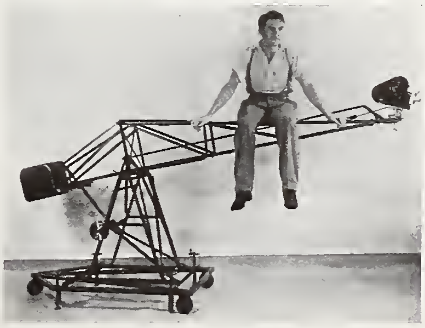
Park Cine prints ■ The acquisition of new facilities and the enlargement of laboratory space have enabled Park Cine Laboratory, 1250 51st Street, Brooklyn, N. Y., to offer this month a newly developed service, optical printing. By means of this, any amateur may have his 8mm. films enlarged to 16mm., 16mm. reduced to 8mm., 9.5mm. transferred to 16mm., or 35mm. reduced to any of these film sizes. The firm also announces that the increase in laboratory facilities will aid in its regular titling work.

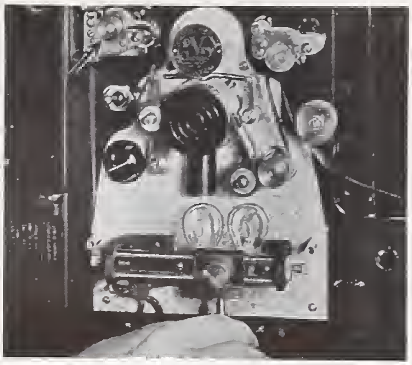
New Agfa station ■ In order to give faster service to the users of Agfa 16mm. reversible film in northern California and the northwestern states, that company has appointed the Motion Picture Service Company, 125 Hyde Street, San Francisco, Calif., as an authorized finishing laboratory. New and up to date equipment has been installed for 16mm. reversal work, and the new station is now ready for operation, supervised bv trained technicians.

Micromovies ■ A complete cine photographic apparatus, that may be attached to any microscope for the production of microscopic movies, recently has been announced by the Bausch & Lomb Optical Company in conjunction with the Eastman Kodak Company, both of Rochester, N. Y. The essential part of the apparatus is the beam splitter, or observation eyepiece. This enables the operator to keep the subject always centered and in focus even while the picture is being made. The beam splitter contains a forty five degree prism, silvered but unbacked, which causes part of the light to be reflected to the film and part to be transmitted through the eyepiece. Thus, anybody who owns a Ciné-Kodak Special and a microscope may, at a modest expense, acquire an efficient cinemicrographic outfit. It is said that, by using Kodachrome film, natural color microscopic movies may be taken of phenomena where color is the best identifying characteristic.

Barlab Camera Crane enables one to make traveling shots

Sterling Barnett, ACL





Sound head of DeVry machine showing spare exciter lamp

New Bargaingram ■ Those who have had copies of the regular numbers of the Bass Bargaingram, issued by Bass Camera Company, 179 West Madison Street, Chicago, know what interesting material it contains in the shape of cine and photo bargains. A new Bargaingram, No. 219, has just been issued and will be sent to Movie Makers readers on application.

Stolen ■ One 16mm. Keystone camera, Model A, No. 56138, has been stolen from the MacLean-Gordon Company, Inc., 10 West 33rd Street, New York.

Jottings ■ Photographic Lens Company, specialists in new and reconditioned lenses for all cameras, both still and movie, announces its removal to 140 West 32nd Street, New York City. ■ Nu-Art Filmco, 16mm. sound on film sales organization, recently has moved to a new address at 145 West 45th Street, New York City.

Film preservation ■ Peerless is the name given to a new process for treating motion picture film of any width, which, it is claimed, keeps the film permanently

[Continued on page 47]

Lasting Impressions

Impress your friends when you show your movies during the holiday season.

You can depend upon their approval if your films have been expertly Edited and Titled by Kodascope.

Let our experienced staff relieve you of the irksome details: — rearrange the scenes in logical order; write appropriate, pleasing title copy; prepare and insert KODATITLES, an ornament to *any* film; and complete your picture professionally.

Our prices are moderate. Write for helpful KODATITLE booklet.

EDITING & TITLING SERVICE

Kodascope Libraries, Inc.

33 West 42nd Street, New York

NEW Ideal "Home" Movies
ALICE IN WONDERLAND

Ten 100 ft. 16mm. reels, each reel a complete adventure—

1. Down the Rabbit Hole
2. Alice and the Duchess
3. Alice and the Cheshire Cat
4. Alice at the Mad Tea Party
5. Alice and the Queen of Hearts
6. Alice and the Caterpillar
7. Alice and the Mock Turtle
8. Alice and the Stolen Tarts
9. Alice and the Mad Hatter
10. Alice in the Court

Also Sports, Scenics, Comedies, Educationals, and a wide variety of 16mm. films.

NOW ONLY $2.00 per 16mm. 100 ft. reel.

Send for free catalog

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QUALITY
PERFORMANCE
UNIFORMITY

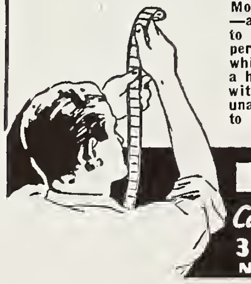
Literature on Request

HUGO MEYER & CO.
245 West 55 St., New York, N. Y.

A Happy New Year

to all our clients and to Movie Makers everywhere—a resolution on our part to maintain the friendly, personalized service for which we are known—and a hope that Movie Makers with whom we are still unacquainted will resolve to learn more about

LUMA
Camera Service
330 W. 42ND St.
N Y C



Advice from a title maker

JESSE S. COHEN

ALL THAT I know about title making is what I have learned around the laboratory. I have made titles for prize winning films and for films that should have seen the bottom of a wastebasket. On the basis of this experience, I am prepared to back up the opinion of the judges of a recent contest, who said that the weakest part of most contest pictures was the titling. Usually, the professional title maker cannot be blamed for this. No matter what his own judgment may be, he is not expected to omit borders when a customer specifically states that he wants borders, and, should he run all the titles of a set on a single art background, when the customer specified different backgrounds for each title, the chances are that the job would come back for a remake. Remakes are expensive.

Some specifications are funny, anyway. For example, a bright young chap dropped in the other day to know if I would make him something really special in the way of a main title assembly. It was to cover all the major events in his family history for the past twenty five years and was to have moving calendar pages and superimposed still pictures, running about 250 feet in length. All this, mind you, was not to introduce a compiled family album of five or six reels, but was intended for a single 100 foot roll of film consisting mainly of closeups of various relatives.

Of course, most of the things the average amateur does are not as far fetched as that. The main trouble seems to be lack of concept of unity in title style. Decorations are chosen, without regard to their fitness, because they look pretty. For example, I made some titles recently for a scenic film based on a rather too well known poem. The subtitles of this film were simply stanzas of the poem, one stanza to a title. The directions for the production of these titles specified that a plain line border be alternated with a fancy art mask throughout the subtitles. The final effect of the edited film must have been chaotic.

Confusion of title styles is, alas, the most prevalent sin in title making. So we reiterate, *don't vary type and borders for the subtitles in any one film, be it one reel or a six reel super special.*

If you cannot bring yourself to follow this rule, at least make all the titles of any one class alike. The following chart of title styles may be of interest.

Title	*Type face*	*Decoration*
Main titles	Ornamental types or hand lettering.	Art background.
Credit titles	Italic for "Photography by," etc. Large capitals for name.	Same as main title.
Subtitles	Plain Roman or Gothic style.	Line border or mottled background.
Spoken titles	Plain Roman or Gothic. (Some use italics.) Never omit quotation marks!	No decoration whatever.

This chart is not inflexible. Comedy subtitles, for example, may be ornamented with amusing little cartoons instead of a border. The professional title maker almost always will be glad to let you have some of his standard title cards on which you can draw your own decorations, after which he will print the titles and photograph them.

I suppose that a scenic film conceivably might have art titles throughout. The usual tendency in cases where art titles are used to a considerable extent is to try to make them appropriate to the scenes which follow. Yet, this change in style produces confusion. If you like art titles, pick out some background typical of the entire subject and use it throughout the reel. Thus, in a film of a European trip, one might use for the background a photograph of a rather ancient looking castle or perhaps a shot of a ship. A different background might be used for each country visited—perhaps a picture of the Eiffel tower for all the subtitles in the section about France, and so on.

On technical films, none of the above advice applies. My friends who make medical, surgical and industrial films have been known to run shrieking from the office at the mere sight of a border card. So there is little danger of finding overdecorated titles in their films. They want their titles plain and unadorned.

But the producers of practical films have their idiosyncrasies, too. One of them is a predilection for long titles. They think nothing of writing forty and fifty word titles and they keep the "pan" carriage working overtime turning out the so called "scroll" titles. The worst example I have met with was a lead title for a girls' camp. It explained the advantages of that camp over all other camps and was made in the the form of a scroll containing 440 words! Approximately eighty lines of type matter were set, and the title took 110 feet of 16mm. film. Well, *I* don't have to read that title on the screen and I'm glad of it.

The main reason for the effectiveness of film as an advertising medium is its attention value. The audience is compelled to look steadily at the screen, because, in most cases, it is the only place they can look in an otherwise dark room. It is hardly fair to make them sit and read an advertising article for five solid minutes (and cinematic minutes are solid!) just because you know they can't get away! It's like shooting a sitting bird.

You will notice I haven't said anything about titling the family film. That's because the family film may come under any one of the other headings. Perhaps it is a record, perhaps an impromptu play or perhaps a scenic. Anyway, it's a personal sort of affair, and personal taste is as good a criterion as any. Just follow the elementary rules and decorate as you please.

Amateur clubs

[Continued from page 23]

Color in capital ■ At a late meeting of the National Capital Cinema Club, in Washington, D. C., the president of the club, Mark Lansburgh, ACL, presented a program of four reels of his attractive color films produced on an extended trip through Europe during last summer. Naples, Pompeii, Rome, Venice and the famous Amalfi Drive are all covered in unusual detail, with the technical highlight of the entire production being Mr. Lansburgh's sequence in color of the interior of the Blue Grotto.

In Montreal ■ *His Old Fashioned Mother*, summer filming effort of the Montreal Amateur Movie Club, has been completed and will shortly be given a premier screening, according to the report of B. Spencer, secretary. Club director Ford already has a new production, a short comedy entitled *Catastrophe*, ready for the cameras. At the season's first meeting of this group, the projection program included *The Habitant*, by Earle Powter; *Flowers in My Garden*, a color study by Harold D. Marwood; rushes from *Life of the Ant*, by Hans Smith.

Cinemats choose ■ At the recent annual meeting of the Mount Kisco Cinemats, in Mount Kisco, New York, Kenneth V. Bloomer, ACL, was unanimously elected president, to succeed himself, and Gordon Gorham was unanimously chosen as vicepresident. Robert F. Gowen, ACL, will carry on as secretary treasurer, winning the office over Harold Park, also nominated. Dr. Kenneth Fish has been appointed by chairman Harvey Hunt to the program committee, while Mr. Gorham will serve with chairman Walter Fowler of the technical committee. The program which followed this business meeting featured a sound on disc demonstration by R. C. Orr and Mr. Bloomer, in connection with experimental work in sound recording which they are conducting, and the presentation of *Ramblings Around Sydney*, by James A. Sherlock, ACL, from the League's Club Film Library.

Third for Rockville ■ On Long Island, the Rockville Cinema Club has completed *Song of Death*, third production for this active group within a year. Written by Harry Smith, ACL, and James Malone, this new thriller was directed by Ray Goldberg and photographed by Mr. Smith. The medical sequences, which key a plot concerning the malpractices of a foreign doctor who would transfer the brain of one person to another, were supervised by Archie M. Harris, M.D., and Harry Jaspin, D.D.S. As before in Rockville productions, Virginia Jones and Tom Preston discharge the leading rôles with credit and are ably supported by Gertrude Stumpf, Ruth Willcox, John Madigan and Mr. Malone. Barbara Flynn and Peg Madigan added bits in an exciting and well executed film.

Scene from a gypsy romance made by Candida Cinema Club

Club for S. I.? ■ On Staten Island, George T. Smith, ACL, is interested in hearing from League members and others desirous of meeting for the formation of a local movie club. His address is 196 Potter Avenue, West New Brighton, N. Y., or he may be reached by telephone at Gibraltar 2—8950-J, on Staten Island.

Eights prepare ■ In prophetic hopefulness, a recent meeting of the Los Angeles 8mm. Club was devoted to the problems of color filming, with Ray Fernstrom, professional movie maker, leading the discussion. Mr. Fernstrom, who uses 8mm. equipment in his personal filming, has lately completed a theatrical series of European travelogs, produced entirely on three color Technicolor. He present-

"STILLS"

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A True Miniature Camera

priced at $57.50

YOU'D never believe a camera so downright compact, so truly "miniature" could take such healthy-sized pictures. Yet Kodak Duo Six-20 turns them out 1⅝ x 2¼ inches in size—sixteen on a No. 620 roll of film.

All miniature camera conveniences: sharp Kodak Anastigmat f.3.5 lens, amply fast for snapshots at night under Photofloods, 1/500 Compur-Rapid shutter that "stops" outdoor action, button-control quick-opening front, spiral focusing mount, depth-of-focus scale, direct-view finder. A "buy" at $57.50. See your dealer.

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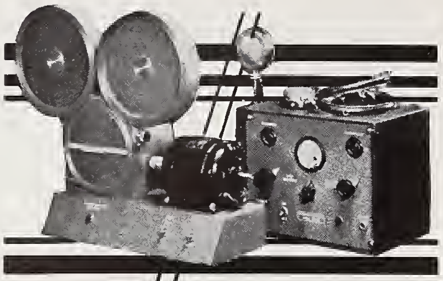

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ed in demonstration of his several points a number of selected sequences from both his personal and his professional work. The meeting was concluded with a screening of *Hooked*, 8mm. Ten Best winner of 1934, by the Grand Rapids Movie Makers, and *Dummy Walks Out*, 1935 Ten Best winner by M. P. Gamber, ACL, and Walter Mills, ACL, both of the Grand Rapids club. These films were sent on loan exchange by the Michigan group for representative reels from the Los Angeles membership.

Kodak club officers ■ In Rochester, N. Y., officers for the coming year of club activity have been elected and announced by the Kodak Camera Club, ACL, as follows: Dr. Walter Clark, president; E. R. Taylor, vicepresident; Mildred Hall, secretary; Monica Powers, assistant secretary; Herbert Shaw, treasurer. These officers were installed at the last meeting of the club, which was favored by a discussion and demonstration of Kodachrome by Leo Godowsky, one of the two young Rochester musicians who invented this new color process. Approximately 450 members and guests attended the meeting.

Players present ■ The recent première of *Ten Easy Lessons*, first production of the Cinema Players of Chicago, was a great success, according to the report of George W. Colburn, ACL, director of this new group. On the program with this comedy there were presented a California scenic, by Mr. Colburn; *Traffic Tangle*, a theatrical sound reduction; *Consequence*, by S. F. Warner, ACL, of the Chicago Cinema Club, and *Valiant Dust*, by the Boston Cinamateur Club, from the League's Club Library. Fourteen members are looking forward to immediate activity on a second film, under the leadership of Charles H. Byrne, president, Gladys Gates, secretary treasurer and Mr. Colburn.

Titles tell ■ A contest judged solely on the excellence of the titles has recently been concluded by the Cinema Club of San Francisco and results will be announced soon, according to the report of J. Oliver Tucker, ACL, president. Screenings at late meetings have included *Lake Shawnigan*, a color scenic, by Spencer W. Symons; *Yosemite*, by E. G. Petherick, ACL; *Ethiopia, China and Japan*, by Theodore Rothman. Dr. D. H. Miller demonstrated a mirror device for simple dissolves.

New member ■ Rudy Vallée, ACL, active cinematographer and MOVIE MAKERS author, is now a life member of the Toronto Amateur Movie Club, according to the latest issue of *Shots and Angles*, club newsletter. Mr. Vallée was introduced to the club by Cliff Shorney and inducted into membership by council chairman S. F. D. Sampson, ACL. Several reels of his complete Kodacolor record of his summer home in Maine were screened by Mr. Vallée following the formalities. Other items on Toronto programs have been a demonstration of 8mm. trick work by Thomas Mace, ACL, a presentation of experimental films in Kodachrome by Narcisse Pellettier and Harry Winter, ACL, and a showing of sound films by Mr. Sampson. S. W. Stock, of the Canadian General Electric Company, has addressed the club recently on the subject, *Incandescent Lighting*.

Outdoor setting ■ Members of Lens and Tripod, a production group working in Salem, Mass., under the leadership of William J. Koen, ACL, recently journeyed to nearby Grafton to witness theatrical production methods as carried on there in filming *Ah, Wilderness* by a unit of Metro-Goldwyn-Mayer. Clarence Brown was the director and Clyde De Vinna was in charge of photography. Grafton is the quiet New England village which, after wide research, was selected as offering a perfect outdoor setting for the nostalgic O'Neill drama of yesteryear.

Adapting animation

[Continued from page 14]

lengthening the stride of the character.

Figures 3 and 4 on page 12 give an idea of the proper construction of your backgrounds. The spot where the character works must, at all times, be kept very much lighter in tone or color so that it will not conflict with the action and so that none of the action will be lost by blending into the background.

A simple pencil background, such as Figure 5 on page 13, can be made easily by anybody with artistic ability. This can be lengthened into a four field panorama if desired. A water color wash background (Figure 6 on page 14) is a bit more difficult to make. However, any artist can make backgrounds such as this at a reasonable cost, and it will add a lot to the appearance of the animation.

Enlargements of regular photographic negatives can also be used as backgrounds. Novel "gags" can be produced by enlarging frames from regular motion picture film and using these as backgrounds for animated characters. Cut the animated sequence back into the picture and the characters will appear to be photographed with the rest of the reel.

Extra "cells" or "X cells" are great labor savers in making animated cartoons. The illustration (Figures 7, 8 and 9 on page 14) of "Elmer The Great Dane," taken from the Walter Lantz cartoon, *Monkey Wretches*, shows what is meant by this process. The run of the dog is animated on one set of "cells." The monkey is animated on another set of "cells" and matched to appear to be perched astride the back of the dog. In this manner, the run of the dog can be used again in some other sequence, where the monkey is not required.

This method can also be used when a character moves his arms or legs while the rest of the body is held. The body of the character is held on one "cell" and the animated part put on a series of "X cells," so that the entire character does not have to be painted and inked more than once. Care must be taken, however, to have the "X cells" matched perfectly at the point of contact between the animated parts and the "held" drawing.

A third dimension effect can be obtained by the use of a sliding overlay celluloid on all "pan" shots. This is a transparent "cell" with a border of trees, cattails, flowers or foreground sets, such as steeples, poles, etc., that occasionally move across the scene and in front of the action. It is used over the top of the entire sequence. It is moved at the same rate of speed as your regular "sliding pan" background. The design on it is painted very dark gray or solid black so that it appears to be directly in front of the camera lens.

Positive title methods

[Continued from page 24]

connect the wires to a small dry battery. The camera field will be projected directly on the title and necessary adjustments can be made.

Make further preliminary tests with the following procedure. Rule a sheet of the title paper with India ink in one half inch squares and, using heavier, broader lines, divide the paper into four quarters.

Having placed this paper on the title board, take the camera into the dark room. Light the safelight and wait a few seconds to permit the eye to adjust itself to the illumination. Unwrap the spool of positive film, wind it on a camera reel and thread the camera with the emulsion side of the film toward the lens. (It is a wise policy not to use the last foot of a spool of film, since "cinch marks" usually are present there. By using this section as a leader, it may be discarded before the rest of the film is developed. A notch in the side can be cut to indicate where this leader ends.)

After the lights are arranged and the test card is in the title board, take trial exposures of a few frames at each stop number engraved on the lens, separating the exposures by covering the lens and taking one or two blank frames. (After this strip is developed, you can select the section in which the black background is

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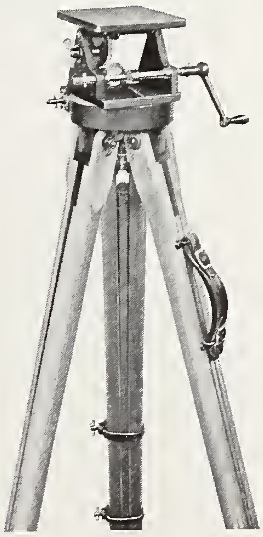

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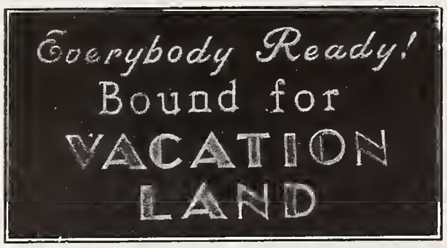

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most opaque but where the white lines still are clear. The stop at which this was taken will be the exposure to use. The ruled squares will enable you to calculate the field of the lens and will also serve as a check on centering the title.)

To develop the film, return the camera to the dark room and, using the safelight, remove the strip of exposed film by cutting it off below the takeup sprocket. (This will save rethreading.) Bend the end of the exposed film over in a short fold of an inch or so. With the aid of the wire hook, pass a rubber band under one of the drum slats. Put one end of the rubber band through the other and then catch the resultant loop in the fold in the end of the film, finally fastening the fold in the film with a pin. Stretch the rubber band and wind the film on the drum, dull side up, holding the camera takeup reel between thumb and forefinger and making sure that the film does not overlap in winding. Secure the other end of the film with a rubber band in a manner similar to the first. The rubber bands will take up the expansion which the film undergoes when wet, and hence will prevent the film from overlapping or slipping off the drum.

Now slip the drum in the *third* set of supports (over the water) and slowly rotate it until the film is thoroughly wet. This will prevent uneven developing action. Transfer the drum to the second set of supports and develop for the required time. The drum is returned now to the third set of supports and the film is washed for about thirty seconds. The drum next is placed over the fixing bath tray and is turned until the yellow portion of the film is dissolved. (The white light may be turned on at this point.) The film should be fixed about five minutes longer, and then it is removed from the drum and piled loosely in one of the bowls. Wash the film by draining the water completely out of the bowl and refilling it every five minutes for thirty minutes.

To dry the film, stretch two parallel strings across the room about eight feet apart and at a convenient height from the floor. Fasten the film from one string to the other, attaching the ends of the film to the strings with pins. Do not allow the film to twist and keep the dull side toward the floor to keep any dust from settling on it. Drying should be done in a comparatively dust free room. Doors and windows should be kept closed during the process.

Excess water is removed by wetting the first and second fingers, closing them over the film and passing them the length of the film. The film then must be polished to remove unsightly drying marks. This is done by taking a piece of moist chamois in one hand and passing it over the shiny side of the film, supporting the film by the edges with the fingers of the other hand. Never permit the chamois to touch the dull or emulsion side of the film. Let the film dry overnight.

Several strips may be handled in an evening by developing the second one while the first is being washed. Be careful not to contaminate the film being washed by touching it with hands that are wet with fixing solution. The drum must be rinsed thoroughly in running water after each strip is developed, and then it should be wiped off with a towel.

The developing and washing trays must be emptied and rinsed after each strip is developed. Since the four by five inch trays have a capacity of but four ounces (even less solution may be used), fresh developer for each strip is not wasteful and certainly improves the quality of the titles. The fixing bath may be used again, merely adding enough fresh solution to fill the tray. It should be discarded when all the developing is finished.

Lights for industrials

[Continued from page 22]

natural for the eye to be restless, and normally it will skip from object to object until it has covered the whole picture. If it is impossible to arrange the composition of the objects in a scene so that the eye is made to follow certain lines back to the focal point, we must do it with lighting. The simplest way to accomplish this is with a spotlight but, except in special cases, this treatment may be a bit too harsh. However, we can modify the arrangement by flooding the scene with soft, low key light and by allowing the important area to stand out in brighter light on the corners. There will be sufficient contrast to pull the eye to the point of interest, and the soft detail in the shadowed parts will give relief from the highlight. Of course, every scene cannot be handled in this manner. Certain scenes will require full lighting for the entire area. Some will require extremely soft light and others hard, contrasty light. It all depends on the subject.

An industrial filmer should have an adequate variety of lenses. First in importance is a one inch, fast lens in a focusing mount and next is a wide angle, 15mm. focus lens. This should be as fast as possible. Some are available in focusing mounts and, while these are preferable, they are not essential because the extremely short focus gives sufficient depth of field even when working at the maximum aperture. Lenses of two and three inch focus are often helpful but they are not as necessary as the wide angle. However, they are useful in making semi closeups and closeups from the same position in which the one inch takes a medium shot, thus saving additional camera setups.

If the camera is not equipped with a

visual focusing device, it is desirable to have a separate focusing miscroscope. If the scale on the lens is accurately calibrated to within two inches, a tape measure can be used. It is important that fast lenses be checked very carefully when mounted in the camera.

Sharp, accurate focus is most essential when dealing with industrial subjects. The lens should be focused for the point of interest and then stopped down as much as possible.

It is sometimes helpful to have a table of depths of field and hyperfocal distances. These tables tell how much depth of field a lens has at any given distance and diaphragm stop. For example, a one inch lens focused for six feet will cover sharply from five and a quarter to seven feet at *f*/1.9 and from three and three quarters to fourteen feet at *f*/8. By using such a table, one can find the stop at which he must work and then can handle the lighting accordingly.

Here is where the exposure meter is indispensable in industrial movie making. Without this accessory, it would be well nigh impossible to control the balance of lighting to match a predetermined exposure. While a still photographer can look at a scene on the ground glass and guess the exposure reasonably well, it should be remembered that in his case a slight variation over or under the correct time does not matter much because he can compensate for it in making the print. In the case of 16mm. movies, we must determine the intensity of the light with accuracy, because we are making instantaneous exposures and cannot compensate in reversal without certain loss of quality.

All parts of the scene should be checked with the meter to be sure that highlights and shadows come as nearly as possible within the range of the emulsion latitude. No single reading will give the correct exposure; it must be computed as an average of the highlight and shadow readings compiled through several tests.

Before starting to shoot a scene, the cameraman should make a final check on the lens settings for distance and diaphragm. The camera should be started before the desired action begins and should be allowed to continue for one or two seconds after the action is finished. This will give some leeway in cutting. It is also helpful in assembling the film to shoot, at either the beginning or end of a scene, a few frames showing a slate on which the scene number has been written in chalk. By referring to these scene numbers, it is comparatively easy to rearrange the film into its proper sequence in the rough editing.

Don't hesitate to retake any scenes where there is any doubt about the action, exposure or focus. It is much better to make as many takes as necessary while the setup is available than to have

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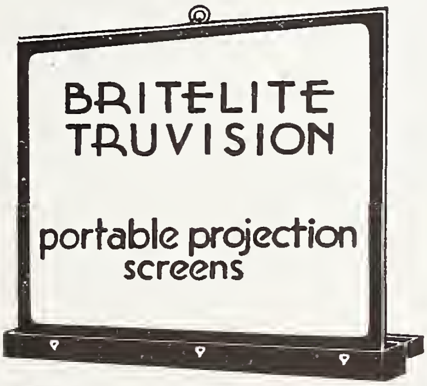

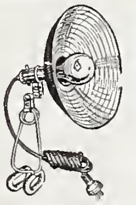

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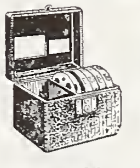

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flaws turn up later which necessitate making the whole setup over again. Theatrical cameramen often plan to shoot as high as five times the finished footage. Although it is sometimes necessary to have such waste because of uncontrollable and unforeseen happenings, one can generally get by with shooting only double the final footage.

Critical focusing

[Continued from page 19]

of mist combined with darkness made it unnecessary to create a Nineteenth Century San Francisco waterfront setting.

Fog and rain: Most of the outdoor action is presented as occurring during bad weather and movie makers will be interested in the treatment of these scenes.

"The Case of the Missing Man" ■ Columbia. The story of this opus is based on the career of a newspaper photographer who throws up his job and conceives the idea of street photography. To him, the story goes, belong the honors of having invented the 35mm. still cameras used on the street to photograph prospective customers. To movie makers, the interest in this picture lies chiefly in the way in which photography is involved in detecting the criminal. At the same time, since the plot and settings are very simple, the handling may offer suggestions to amateur photoplay producers.

"I Found Stella Parish" ■ First National. *Makeup:* In fleeing to America, Stella Parish disguises herself as an elderly spinster, and, while this disguise is not so effective that it should have been particularly baffling to her pursuer, yet it does present a clear picture of how helpful in creating a character are accessories, such as wigs, hats and eye glasses. Grease paint is used but moderately, and it is in Kay Francis's carriage and her handling of accessories that the real characterization is achieved.

"Metropolitan" ■ Fox. *Introduction:* The clever plot device that opens this excellent musical picture offers a technique that might be adapted to a more simple purpose by some movie makers. A girl, working on her stalled roadster, has turned on the car radio, which she is accompanying with her own voice. Suddenly, a second voice is heard as Lawrence Tibbett is introduced, for the time being only vocally. Later, he walks into the scene.

Grand opera: This picture marks a notable step in the evolution of the talking film, for it shows that grand opera, in parts at least, may be treated cinematically without resorting to forced or artificial handling. In a sequence of *Carmen*, the camera follows Escamillo (with inserted reaction shots) just as freely as it might in any other dramatic picture. Here, the operatic technique is unhampered, but the opera is also a real movie.

Montage: After it has appeared that the new opera company is bankrupt, money is found and it suddenly becomes possible to go ahead with the performance. How the players and orchestra are routed out of homes, clubs and hotels is shown in an amusing and well handled *montage* sequence of the type that many movie makers could emulate.

Character rôle: Those studying all phases of modern movie technique will be interested in the way the character of the temperamental old maestro is built up and maintained, partly as comedy relief and partly as a factor in the development of the plot. Allied with this is the restrained use of pure comedy relief in the appearance of the scrub woman, who attends the opening night.

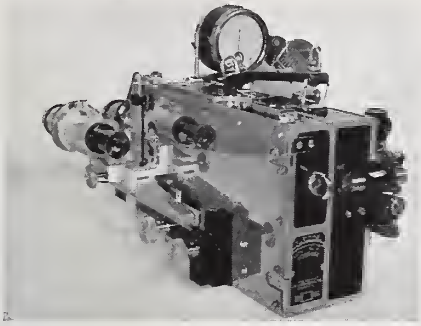
"Charlie Chan in Shanghai" ■ 20th Century-Fox. *Lighting:* Amateur movie makers planning a mystery story will find worthy of study the lighting effect in the sequence of Charlie Chan being questioned by the archfiend whom he is pursuing. The criminal, using police methods, is seated between two brilliant lights which are reflected on Charlie Chan's face but which make it impossible for him to see the mystery man behind the lights. One well handled shot, taken from Chan's viewpoint, shows the lights glaring directly into the camera (with no halation, however) and reveals that Chan cannot see his questioner. Warner Oland, as Charlie Chan, now has an effective assistant in Keye Luke, as his son.

The clinic

[Continued from page 21]

to put more than five flood lamps on any one circuit. The usual home circuit is fused for fifteen amperes, while each flood lamp will draw about two and a half amperes.

Title backgrounds ■ The projector may be used for enlarging single frames on bromide paper when the resultant pictures are to be employed as negative backgrounds in title making by the direct positive method. The machine must be well shielded with a light proof box and the image must be focused carefully on a sheet of white paper. The paper then is removed and, in its place, a sheet of bromide paper is affixed. A short exposure, the duration of which must be determined by tests, will make the picture. The result will be a negative enlargement that is suitable for black lettering and filming with positive stock.



Visual focuser for a Special, made by Dr. Milton Cohen, ACL

Usually, the result is most effective when the frame is rather dark and when it is printed heavily in the enlargement.

Titler instructions ■ The League's technical service reprint, which gives directions for building a titler capable of handling backgrounds up to nine by twelve inches, is available to any League member. The titler is suitable for both 16mm. and 8mm. cameras, with minor changes according to the type of equipment used. The fundamental principles of titling, as outlined in *Making Better Movies* and the League's bulletin, *Titling technique*, apply equally to 16mm. and 8mm.

Animated whatnot ■ One of the effects that most amuse audiences of amateur films is the animation of inanimate objects of all kinds. For instance, it will mystify an audience to see a pair of shoes move across the floor and settle themselves in the closet without apparent means of locomotion. Such effects are very easy to make, and nothing more is needed than a bit of patience. The action is created by filming one or two frames at a time and by moving the objects a slight distance between shots. The speed of the motion is determined by the distance the object is moved each time. The shorter the distance, the slower and smoother the action. A little practice in the form of a test shot will indicate the proper technique. Many amusing sequences can be worked out, such as a plate of food disappearing rapidly in front of the hungry subject. This is done by filming a frame or two every few seconds as the food is consumed or removed from the plate.

Color chart ■ An interesting test for any type of color or black and white film is to expose it on a color chart. Various colored papers or cardboard, such as showcard stock, will serve to make up the chart. Select a good range of colors and mount them on a large sheet of gray cardboard, leaving enough space under each one to print the name of the color. Such a chart could be filmed at a wide range of exposures,

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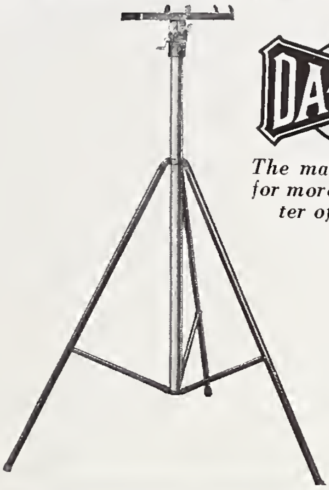

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This wipes into a series of scenes, each of which travels forward, one replacing the other. Against this series, the wording, "Member Amateur Cinema League" is double exposed. The scenes, all in motion, symbolize various types of movie making—vacation and travel—sport and newsreel—family and portrait—scientific and medical—industrial and business—scenic and nature.

The last of the series wipes into a moving pattern of film strips—35mm., 16mm. and 8mm.—and over the design appears the wording, "The world wide organization of amateur movie makers." This scene fades out, bringing the leader to a close.

A League leader is given FREE OF CHARGE TO EVERY LEAGUE MEMBER UPON THE RENEWAL OF HIS MEMBERSHIP. Any League member can get one of the new leaders free *immediately* by renewing his membership in advance. (If you renew in advance, specify which width of leader you wish.)

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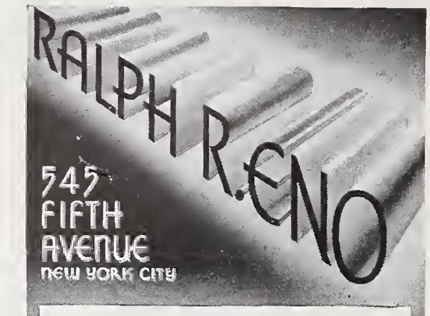

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DEPTH OF FIELD TABLE FOR THE 1-INCH ƒ1.9 LENS.

DISTANCE FOCUSED UPON	RANGE OF SHARPNESS													
	ƒ1.9		ƒ2.8		ƒ3.5		ƒ5.6		ƒ8		ƒ11		ƒ16	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	44"	INF	30'-0'	INF.	24'-0"	INF	15'-0'	INF.	10'-6"	INF	7'-7"	INF	5'-3"	INF.
50'	23"	INF.	18'-0"	INF.	16'-0"	INF.	11'-6"	INF.	8'-7'	INF	6-7"	INF.	4'-9"	INF.
25'	15'-10"	58'-0"	13'-7'	152'-0"	12'-0"	INF.	9'-4"	INF.	7'-5"	INF	5'-10"	INF	4'-4"	INF
15'	11'-2"	23'-0"	10'-0"	30'-0"	9'-3"	40'-0"	7'-6"	INF.	6'-2"	INF	5'-0"	INF	3'-11"	INF.
10'	8'-2"	12'-0"	7'-6"	15'-0"	7'-0"	17-2"	6'-0"	30'-0"	5'-1"	210'-0"	4'-4"	INF	3'-5"	INF
8'	6'-9"	9'-9"	6'-4"	11'-0"	6'-0"	12'-0"	5'-2"	17'-4"	4'-6"	33'-7"	3'-10"	INF	3'-2"	INF.
6'	5'-3"	7'-0"	5'-0"	7'-6"	4'-9"	8'-0"	4'-3"	10'-0"	3'-10"	14'-0"	3'-4"	28'-6"	2'-9"	INF.
4'	3'-8"	4'-4"	3'-6"	4'-7"	3'-5"	4'-9"	3'-2"	5'-6"	2'-11"	6'-6"	2'-7"	8'-6"	2'-3"	17'-0"
3'	2'-9"	3'-3"	2'-9"	3'-4"	2'-8"	3'-5"	2'-6"	3'-3"	2'-4"	4'-2"	2'-2"	5'-0"	1'-11"	7'-0"
2'	-23"	-25"	-22"	-26"	-22"	-26"	21"	-28"	-20"	-30"	-19"	-32"	-17"	-39"

and the results would furnish material for profitable study. In the case of black and white films, the effect of filters can be determined in a very clear fashion.

Above and below are useful tables for a cine note book. Cut them out and save them.

Fading glass ■ The fading glass offers the most practical means of making fades if the camera is not equipped with a variable shutter. However, the glass must be used properly if a good effect is to be obtained. After a fade in, do not remove the glass from in front of the lens but continue shooting through it until the fade out. If the glass is taken away, the effect can be seen on the film. While holding the glass before the lens during a whole scene is a bit inconvenient, unless a holder is used, this is the only way to get a smooth picture. A holder which will allow the glass to slide in front of the lens is an excellent idea and it can be made easily by anybody with mechanical ability. A light wooden block, with a hole to slide over the lens and a slot in which the glass can slide, does the trick. Line the hole with a wide rubber band, held in with rubber cement, in order to make the holder grip the lens barrel.

Projector speed ■ The correct speed for the projection of all silent movie film is sixteen frames a second. A slower speed than this will produce a flicker, and higher speed not only makes the action look unnatural but also increases the tendency toward unsteadiness. The simple way of judging the projection speed is to start slowly enough to give a definite flicker and to increase the current until the flicker is no longer seen. This must be done with film in the machine, since a blank white screen will show a flicker at higher speeds than sixteen frames. To be very accurate, the speed of the sprockets can be counted. Most sprockets pass eight frames every revolution, so that two revolutions a second or 120 a minute are required for a speed of sixteen frames a second. A small dot of black ink on the sprocket will serve to make counting easy.

Bulletins ■ The current set of League bulletins includes *Cine Travel Plans, Exposure in Essence, Scenarized Film Plans* and *Titling Technique*. The service sheets available are *Developer Formula, How to Build a Titler, Reversal Data, Tinting Data* and *Toning Data*. Members may have any or all of these aids. They may request to be put on the mailing list for all future bulletins. However, the service sheets are sent only in response to specific requests for information on the subjects they cover. Since bulletins constitute a standard part of League aid, members are urged to apply for them. A post card request brings a member all bulletins.

DEPTH OF FIELD TABLE FOR THE 12.84 MM. ƒ1.9 LENS. (8MM. CAMERAS)

DISTANCE FOCUSED UPON	RANGE OF SHARPNESS													
	ƒ1.9		ƒ2.8		ƒ3.5		ƒ5.6		ƒ8		ƒ11		ƒ16	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	22'-6"	INF.	15'-3"	INF.	12'-2"	INF.	7'-7"	INF	5'-4"	INF.	3'-11"	INF	2'-8"	INF.
50'	15'-6"	INF.	11'-8"	INF.	9'-10"	INF	6'-7"	INF.	4'-10"	INF.	3'-7"	INF.	2'-6"	INF.
25'	11'-10"	INF.	9'-6"	INF.	8'-2"	INF.	5'-10"	INF.	4'-7"	INF.	3'-4"	INF	2'-5"	INF.
15'	9'-0"	45'-0"	7'-7"	INF.	6'-9"	INF	5'-1"	INF.	4'-2"	INF.	3'-1"	INF	2'-3"	INF.
10'	6'-11"	18'-0"	6'-0"	29'-0"	5'-6"	56'-0"	4'-4"	INF.	3'-5"	INF.	2'-10"	INF.	2'-1"	INF.
8'	5'-11"	12'-5"	5'-3"	16'-10"	4'-10"	23'-2"	3'-11"	INF.	3'-2"	INF	2'-7"	INF	2'-1"	INF.
6'	4'-9"	8'-2"	4'-4"	9'-11"	4'-0"	11'-10"	3'-4"	28'-6"	2'-10"	INF.	2'-4"	INF.	1'-10"	INF.
4'	3'-5"	4'-10"	3'-2"	5'-5"	3'-0"	5'-11"	2'-7"	8'-5"	2'-3"	15'-11"	1'-11"	INF.	1'-7"	INF.
3'	2'-8"	3'-6"	2'-6"	3'-9"	2'-5"	4'-0"	2'-2"	4'-11"	1'-11"	16'-0"	1'-8"	18'-3"	1'-5"	INF.
2'	1'-10"	2'-2"	1'-9"	2'-4"	1'-9"	2'-5"	1'-7"	2'-9"	1'-6"	3'-2"	1'-4"	4'-2"	1'-2"	8'-0"

Annual directory of MOVIE MAKERS display advertisers

THE *Annual directory of* Movie Makers *display advertisers* is published as a service both to prospective purchasers of movie equipment and to dealers. Every article of service advertised in Movie Makers during 1935, and in this number, is listed in alphabetical order and is followed by the names of the advertisers and the numbers of the pages on which the advertisements will be found.

Each advertiser, who offers a particular article or service in the advertising columns of this number of Movie Makers, is listed under the appropriate heading in bold faced type. This provides a convenient reference for products offered in this particular number of Movie Makers.

Amateur cameramen and dealers in cine supplies will find this index a remarkably complete listing of non theatrical movie equipment and services marketed during the past year. If it is preserved, it should prove valuable for reference purposes during 1936.

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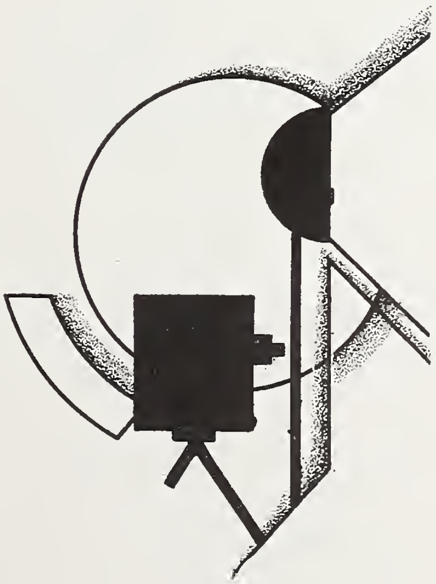

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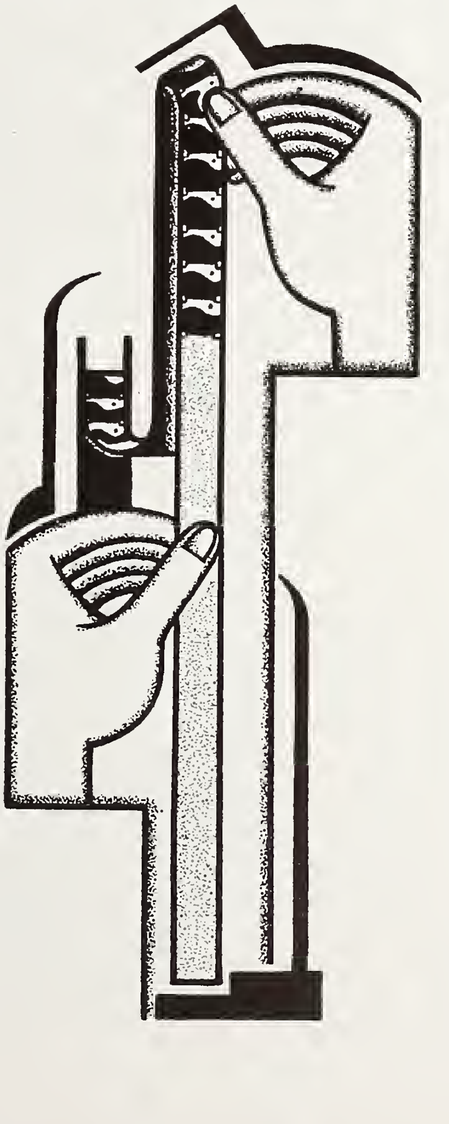
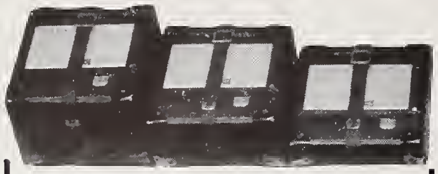
NAMES AND ADDRESSES OF ADVERTISERS

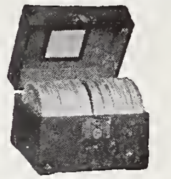
Addresses of firms advertising in Movie Makers during 1935 and January 1936:

Agfa Ansco Corp., Binghamton, N. Y.
The Ampro Corp., 2839 North Western Ave., Chicago, Ill.
Art Title Guilde, 4862 Sheridan Rd., Chicago, Ill.
The Australia Hotel, Sydney, N. S. W., Australia.
The Automatic Electrical Devices Co., 324 E. 3rd St., Cincinnati, Ohio.
Automotion Pictures, Inc., 14 W. 40th St., New York, N. Y.
Autonator Laboratories, 8440 S. Chicago Ave., Chicago, Ill.
Barnett Laboratories, 8210 Melrose Ave., Hollywood, Calif.
Bass Camera Co., 179 W. Madison St., Chicago, Ill.
Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill.
Bell Sound Systems, Inc., 59 E. Goodale St., Columbus, Ohio.
The Berndt-Maurer Corp., 117 E. 24th St., New York, N. Y.
Boulder Dam Service Bureau, Boulder City, Nev.
The Brewster & Stroud Co., Chagrin Falls, Ohio.
Brooks, Burleigh, 127 W. 42nd St., New York, N. Y.
Burke & James, Inc., 223 W. Madison St., Chicago, Ill.
Bussey, W. Stuart, 17 E. St. Joseph St., Indianapolis, Ind.
Cameo Title Service, 420 W. 16th St., Davenport, Iowa.
Central Camera Co., 230 S. Wabash Ave., Chicago, Ill.
Cine Classic Library, 1041 Jefferson Ave., Brooklyn, N. Y.
Cineque Laboratories, 123 W. 64th St., New York, N. Y.
Clargray, 264 Wyckoff St., Brooklyn, N. Y.
Cochrane, Jr., J. D., 734 Brooks Ave., Wyoming, Cincinnati, Ohio.
Almer Coe & Co., 105 N. Wabash Ave., Chicago, Ill.
Abe Cohen's Exchange, 120 Fulton St., New York, N. Y.
Colburn, Geo. W., 7100 N. Washtenaw Ave., Chicago, Ill.
Columbia Ribbon & Carbon Mfg. Co., Inc., Glen Cove, N. Y.
Columbus Photo Supply, 146 Columbus Ave., New York, N. Y.
Craig Movie Supply Co., Inc., 1053 S. Olive St., Los Angeles, Calif.
Crennan, Ollie V., 498 Main St., New Rochelle, N. Y.
Da-Lite Screen Co., Inc., 2723 N. Crawford Ave., Chicago, Ill.
Andre Debrie, Inc., 115 W. 45th St., New York, N. Y.
Herman A. De Vry, Inc., 1111 Center St., Chicago, Ill.
Dubes' Camera Service, 26 Linden St., Lakewood, N. J.
Dufaycolor, Inc., 30 Rockefeller Plaza, New York, N. Y.
Eastin 16mm. Pictures, 322 Ripley St., Davenport, Iowa.
Eastman Kodak Co., Rochester, N. Y.
Edco Electronic Devices, Inc., 112 W. 21st St., New York, N. Y.
D. F. Elder & Co., 15 Marlborough St., Chelsea, Mass.
Empire Safety Film Co., Inc., 723 Seventh Ave., New York, N. Y.
Eno, Ralph R., 545 Fifth Ave., New York, N. Y.
Fiberbilt Sample Case Co., 40 W. 17th St., New York, N. Y.
Film Library of New England, 239 Columbus Ave., Boston, Mass.
Fototone Studio, 33 W. 60th St., New York, N. Y. (Formerly G. A. Busch & Co.)
Fried Camera Co., 6154 Santa Monica Blvd., Hollywood, Calif.
Garden Camera Exchange, 800 8th Ave., New York, N. Y.
General Electric Co., Nela Park, Cleveland, Ohio.
Gerke, Frederic L., 45 W. 45th St., New York, N. Y.
Gillette Camera Stores, Inc., Park Ave. at 41st St., New York, N. Y.
C. P. Goerz American Optical Co., 317 E. 34th St., New York, N. Y.
Walter O. Gutlohn, Inc., 35 W. 45th St., New York, N. Y.
Hackel, Joseph P., 53 W. 57th St., New York, N. Y.
J. C. Haile & Sons, 215 Walnut St., Cincinnati, Ohio.
Harry's Camera Exchange, 317 W. 50th St., New York, N. Y.



Hartley-Leonard Productions, 210 W. 78th St., New York, N. Y.
Haselton, Guy D., 7901 Santa Monica Blvd., Hollywood, Calif.
Hemenway Film Co., 37 Church St., Boston, Mass.
Herbert, Henry, 483 Fifth Ave., New York, N. Y.
Hockenbury, Albert S., 70 York St., Lambertville, N. J.
Hollywood Cine Film Distributors, 1437 N. Highland Ave., Hollywood, Calif.
Hollywood Roto-Tank Corp., 5225 Wilshire Blvd., Los Angeles, Calif.
Hollywoodland Studios, 9320 California Ave., South Gate, Calif.
Home Film Libraries, Inc., 500 Fifth Ave., New York, N. Y.
Horne Movie Service, 342 Madison Ave., New York, N. Y.
Hornstein, Alfred D., 29 E. Madison St., Chicago, Ill.
Ideal Pictures Corp., 30 E. 8th St., Chicago, Ill.
International Educational Pictures, Inc., 40 Mt. Vernon St., Boston, Mass.
International Photographer, 1605 N. Cahuenga Ave., Hollywood, Calif.
International Projector Corp., 88 Gold St., New York, N. Y.
Jewell Studio, 174 W. Dominick St., Rome, N. Y.
Kay, H. B., 40 Linden St., Brooklyn, N. Y.
The Kelsey Co., Meriden, Conn.
Keystone Mfg. Co., 288 A St., Boston, Mass.
Kin-O-Lux, Inc., 105 W. 40th St., New York, N. Y.
H. W. Knight & Son, Inc., Seneca Falls, N. Y.
Kodascope Editing & Titling Service, Inc., 33 W. 42nd St., New York, N. Y.
Kodascope Libraries, Inc., 33 W. 42nd St., New York, N. Y.
Lester, Henry M., 1 Pershing Square, New York, N. Y.
Lewis Film Service, 329 Sedgwick Bldg., Wichita, Kans.
Luma Camera Service, 330 W. 42nd St., New York, N. Y.
Major Film Laboratories, 120 W. 41st St., New York, N. Y.
McLarty, Henry D., 75 Enola Ave., Kenmore, N. Y.
Hugo Meyer & Co., 245 W. 55th St., New York, N. Y.
Mimosa American Corp., 485 Fifth Ave., New York, N. Y.
Mogull Bros., Inc., 1944 Boston Rd., New York, N. Y.
Motion Picture Camera Supply, Inc., 723 Seventh Ave., New York, N. Y.
Motion Picture Screen & Accessories Co., 528 W. 26th St., New York, N. Y.
R. L. Muckley & Co., 435 N. Michigan Ave., Chicago, Ill.
New York Institute of Photography, 10 W. 33rd St., New York, N. Y.
I. C. Newman Co., Inc., 6 E. 45th St., New York, N. Y.
Newman's Camera Exchange, 1192 Sixth Ave., New York, N. Y.
Nu-Art Filmco, 145 W. 45th St., New York, N. Y.
Park Cine Laboratory, 1250 51st St., Brooklyn, N. Y.
Phillips Laboratory, 653 Hillcrest Ave., Westfield N. J.
The Photo Crafts Laboratory, Wantagh, N. Y.
Photo Utilities, Inc., 152 W. 42nd St., New York, N. Y.
Photographic Lens Co., 140 W. 32nd St., New York, N. Y.
Photographic Specialties, Inc., 129 W. 22nd St., New York, N. Y. (Formerly Photolites, Inc.)
Portable Light Co., 12 Warren St., New York, N. Y.
Previews, Inc., 342 Madison Ave., New York, N. Y.
RCA Mfg. Co., Inc., Camden, N. J.
Rab Sons, 1373 Sixth Ave., New York, N. Y.
Regina Photo Supply, Ltd., 1924 Rose St., Regina, Sask., Canada.
Reynolds, Ernest M., 165 E. 191st St., Cleveland, Ohio.
Rhamstine, J. Thos., 303 Beaubien St., Detroit, Mich.
Rosco Laboratories, 367 Hudson Ave., Brooklyn, N. Y.
Schick, Sunny, 405 W. Washington Blvd., Fort Wayne, Ind.
Schultheis, Herman, 20 Irving Pl., New York, N. Y.
Solite Sales Co., 1373 Sixth Ave., New York, N. Y.
Sound Products Co., Inc., 150 Nassau St., New York, N. Y.
Donald Stewart Film Library, Box 186, Flushing, N. Y.
Albert Teitel Co., 105 W. 40th St., New York, N. Y.
Tuomey, John, 122 Fifth Ave., New York, N. Y.
Victor Animatograph Corp., Davenport, Iowa.
Vitachrome Cine Film Co., 204 E. 18th St., New York, N. Y.
Weston Electrical Instrument Corp., 626 Frelinghuysen Ave., Newark, N. J.
Whitehall Specialty Co., 1250 Fullerton Ave., Chicago, Ill.
Willoughbys, 110 W. 32nd St., New York, N. Y.
Wodnal Studio, 7915 Santa Monica Blvd., Hollywood, Calif.
Wollensak Optical Co., 980 Hudson Ave., Rochester, N. Y.
Wonderlite Co., W. Orange, N. J.
World Film Enterprises, 630 Ninth Ave., New York, N. Y.
Y. M. C. A. Motion Picture Bureau, 347 Madison Ave., New York, N. Y.





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The burglar

FERGUS REDDIE

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Scene 1. *Medium shot.* A dining room with the table set for three. There is an empty place. Mother and Father are finishing dinner. Both of them seem nervous or ill at ease about something. Dad looks at a clock on the mantel.

Scene 2. *Closeup.* The clock, showing that it is nearly eight o'clock.

Scene 3. *Semi closeup.* Dad looks down from the clock and at the empty place. He speaks angrily.

Title 1. *"If he isn't here in five minutes . . .!"*

Scene 3. *Continued.* Dad finishes and looks at Mother.

Scene 4. *Semi closeup.* Mother looks worried but tries to soothe the Dad. She speaks.

Title 2. *"I don't see where he could be."*

Scene 4. *Continued.* Mother finishes speech and starts suddenly to look away from Dad.

Scene 5. *Semi closeup.* Inside the front door. It opens slowly and a young boy sticks his head in, looking around apprehensively as if expecting trouble. He steps in.

Scene 6. *Medium shot.* Mother and Dad at the table, looking toward Junior as he comes into the scene. Mother rises and starts to fix some food for him. She stops and looks at Dad.

Scene 7. *Semi closeup.* Dad gesturing strongly in disapproval. He speaks.

Title 3. *"Bed without supper is the thing for a child like him."*

Scene 8. *Medium shot.* Carry on as in Scene 6. Dad is gesturing toward the stairs. Junior looks appealingly at Mother, who looks at Dad, but he is firm. Junior leaves.

Scene 9. *Medium shot.* Junior's bedroom. He is in his pajamas and gets into bed. He is hungry and restless and tosses about. *Slow fade out.*

Scene 10. *Medium shot. Slow fade in.* The living room, with Father and Mother at evening activities. Mother looks up at the ceiling as if listening for some noise from Junior's room. She returns to her sewing.

Scene 11. *Closeup.* The clock in the living room. It is ten thirty.

Scene 12. *Medium shot.* Different angle on the living room. Dad folds up his paper and makes ready to go to bed. Mother puts away her sewing. They leave the room, turning off the light.

Scene 13. *Semi closeup.* Junior asleep with head on pillow. Mother, in nightgown and wrapper, is bending over him. She kisses him, draws cover over him and then leaves the scene.

Scene 14. *Medium shot.* Bedroom with twin beds. Father, in pajamas, is doing Indian club exercises before retiring. He puts the clubs between the beds. He gets into bed, lying on right side with back to other bed.

Scene 15. *Medium shot.* Bedroom. Father asleep in bed. Mother comes in softly, gets into bed and turns out the light. *Fast fade out.*

Scene 16. *Semi closeup. Fade in.* It is dark and the bottom of a door barely can be seen. The door opens, revealing a shaft of light from the other room. The door closes again mysteriously.

Scene 17. *Medium shot.* Father and Mother asleep. Mother starts up and listens.

Scene 18. *Semi closeup.* A table in the living room in the semi darkness. An ash tray falls off the table on the floor below.

Scene 19. *Medium shot.* Same as Scene 17. Mother shakes Father, who sits up in bed. Mother turns on the light and whispers, "Burglars!" to Father, and then puts a finger over her lips to indicate silence. Father listens.

Scene 20. *Near shot.* Chair in the darkened dining room, silhouetted by light from another room, the chair falls over as somebody on the dark side passes by and brushes it.

Scene 21. *Medium shot.* Same as Scene 19. Father jumps out of bed and grabs an Indian club. Mother follows him. Father pauses at the door, listens and then starts to creep out. Mother picks up a flashlight from a bureau and comes after him.

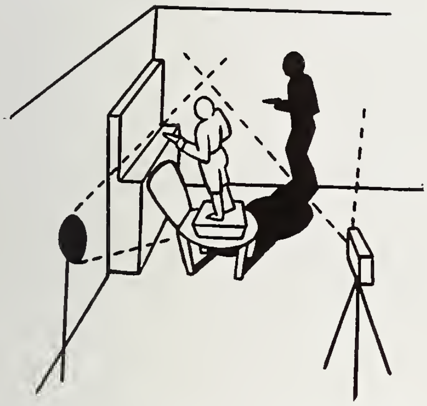
Scene 22. *Medium shot.* Mother and Father are creeping down the stairway, Father in front with the Indian club raised. Mother lights the flashlight, moving it around to search for burglars.

Scene 23. *Medium shot.* Living room. Mother and Father creep in through the door, Father holding the Indian club aloft and Mother inspecting the premises with the flashlight. They stick together.

Scene 24. *Semi closeup.* In the kitchen in the darkness. A stool is piled on a chair in the scene and the stool slips off the chair, falling to the floor.

Scene 25. *Near shot.* Father and Mother in the living room. Mother jumps and clings to Father. Together, they proceed very cautiously toward the dining room.

Scene 26. *Medium shot.* The dining room in semi darkness. There is a shaft of light across the floor which comes from the kitchen door, although the door cannot be seen. Mother and Father creep in through the living room door. They pause and look at the light on the floor. Suddenly Mother clutches Father's arm and points with a trembling hand at the wall outside the camera range. Father starts and stares in the direction toward which Mother points.



Setup of lights, camera and actor to make shadow effect

Scene 27. *Medium shot.* Of the wall only. On the wall is a shadow of what appears to be a tall man who is holding a revolver upraised. (Note: This shadow effect is produced by Junior who is standing on a stool which has been placed on a chair so that he can rifle the cupboard. The gun is a chicken drumstick. To get a fairly sharp and convincing shadow, stage this scene separately as indicated in the diagram herewith. Since only the shadow on the wall is shown in this scene, the shot actually may be made in the kitchen, if more convenient.)

Scene 28. *Semi closeup.* Mother and Father. Mother clings to Father, who raises the Indian club. Father comforts Mother and whispers:

Title 4. *"I will tackle him with the club!"*

Scene 29. *Medium shot.* Mother and Father and the shadow on the floor, which wavers ominously. Father and Mother creep forward and then rush to the brightly lighted door where they halt abruptly. Father lowers his Indian club slowly and Mother stares.

Scene 30. *Medium shot.* From the kitchen door. Junior is standing on a stool that has been placed on a chair so that he can rummage in a kitchen cupboard. In his hands he holds a chicken drumstick, which he raises to his mouth. He turns and sees his parents.

Scene 31. *Semi closeup.* Father and Mother. Father drops his weapon at his side and looks at Mother. They smile foolishly at each other.

Scene 32. *Semi closeup.* Junior, who is wrestling with the drumstick. He beckons his parents into the kitchen.

Scene 33. *Medium shot.* In the kitchen. Edibles have been spread on the kitchen table, and Junior, Father and Mother, all in their night clothes, are having a midnight snack. *Fade out.*

New wrinkles on newsreels

[Continued from page 17]

be one unit or clip of your reel. Go over the others the same way. If you are short of comedy breaks, perhaps you can go out and make some.

Suppose that you have a series of views at the local four corners and that you need a laugh that is not on the film. In time, you will learn to look for the comedy when the shot is made. Meanwhile, try this outline:

Street corner. Rival newsboys. Both seek the same customer. They scrap. The victor sells the prospect a newspaper. Loser nurses a black eye.

The scene plan for that would read, perhaps, as follows:

Street corner. Medium shot of two newsboys.

Closer. They evidently are not friendly. Man enters. Both offer papers. Man undecided.

Come in close. One boy nudges the other away. Fight starts.

Distant shot of the fight.

Closer in. Loser holds his hand to his eye. He has a black eye.

Medium. Fight stops.

Closeup. Winner sells his paper.

The customer is a friend of yours and the two boys are neighborhood youngsters who will stage the fight for a quarter apiece—or maybe for pleasure. Just tell them what you want and stage the fight on a quiet street corner where you will not attract attention. Your friend carries makeup for that black eye, which is put on between shifts of camera position.

Your assembly can be related or it can be as different as possible. One clever worker cut out excerpts from six reels of old material in order to gather shots of parades. These he assembled as *The Parade of Time.*

It ran as follows: *It is human nature*

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to want to put on fancy togs and parade. From our cullud brother—

Then came a shot of a Negro burial society.

To the guardians of our peace, who wear uniforms every day and as regularly parade—

Then followed a shot of a single policeman on beat and a few feet of a police parade.

It's just one common urge to show off. For example—

Next came various parades—Elks, Shriners, Odd Fellows and Hibernians. The picture ended with the grandest parade of all, a circus procession.

Here is a word about titling: you may be a crack photographer and yet lack a sense of humor and, if so, get somebody to write titles for you. In every circle, there is always at least one person who can do better than write "wise cracks." Get the best—even if you do have to give credit on the screen.

Be careful about your main titles. Do not use the first thing that comes into your head, unless it clearly is a heaven sent idea. Write fifty or a hundred titles. Paramount paid $10,000 for the rights to a medical work with a title it wanted —"The Dance of Life." It paid the money because the title helped sell the picture. It is just as necessary for you to sell your non paying audience as it is to coax them up to a theatre box office.

The collegiate camera

[Continued from page 18]

ready to film any unexpected occurrence —a campus fire, a student celebration or police dispersing a pajama parade. When a nationally famous educator, explorer or scientist speaks at convocation, steal a few informal "pot shots" as he leaves the auditorium in the company of distinguished guests.

Passage of time can be designated by filming a hand tearing off a monthly calendar leaf or replacing a yearly one. By including scenes that feature the changes in the seasons, it is possible to impress an audience with lapse of time.

Commencement will doubtless climax your reel. Have a classmate film the procession, later swinging to a closeup of yourself, followed by similar closeups of your college friends. If commencement ceremonies are held at night under powerful stadium spotlights, insert supersensitive film in your camera and ask a friend to record the action. Close with a shot of students grasping diplomas, shaking hands and bidding each other farewell.

An idle movie camera on a college campus is a prospective money maker for its owner. There are football games and club affairs to photograph. Sorority and fraternity outings and general campus activities offer possibilities. Publicity films to supplement the president's appeal for funds and increased enrollment would be welcomed in smaller colleges. Geologists and other scientists go exploring during their summer vacations, and a few could well afford to use a movie maker on their expeditions. Even medical and dental schools offer an interesting chance for revenue to stiff lipped fellows who can shoot a gory operation.

Ski shots

[Continued from page 20]

acter to your film and remember that a good comparison means emphasis. A beginner walking up the hill with his skis over his shoulder suddenly falls into a hole up to his thigh. This is very effective, but think how much more effective it would be if you make a comparison with an advanced skier who gracefully climbs the same hill on his skis.

Build up the interest by showing some advanced skiers practicing ski control on the open slopes and follow these scenes with thrilling action shots on the trails. It is rather difficult to produce a true presentation of action that takes place on narrow trails because of the need to tilt the camera up or down, which produces poor perspective. The best camera position from which to capture these scenes is at the bottom of a hill, at a point below a turn. This position gives scenes that convey a good sensation of speed and permits the skier to exit without coming too close to the camera. It also permits action shots of the turns, which represent the most interesting phase of trail skiing.

The problem of exposure for skiing resolves into a compromise between the correct value for the delicate snow shadows and the correct value for important details in the darker objects, such as the trees and the skiers' clothing. For the ordinary panchromatic film, a four times yellow filter with a stop of *f*/4 to *f*/5.6 is recommended, depending upon the brightness of the sun. However, when you are photographing a snow scene in which there are but few important dark objects, less exposure should be given.

Every good motion picture should be based on a logical development of interest, with a climax near the end of the film, but it also should have either comic or human interest relief. To provide human interest for a winter sports reel, perhaps a *montage* treatment of the lunch period would be most effective. Take many short shots of people eating, changing your angles, subjects and

length of footage for each shot. Conclude the sequence with a longer scene that shows the effect of the lunch—perhaps the efforts of a stout person trying in vain to reach down to fasten the skis.

Then, start things off with a quick buildup to the climax of the film, which, in most cases, will be ski jumping. It is advisable to film these views at thirty two frames a second for greater naturalness during projection. Use many viewpoints, though never at right angles to the action, and, in editing, place the most effective scenes at the end. In filming from the bottom of the jump, it is advisable to use a telephoto lens but only in conjunction with a tripod, for otherwise the scene will be too jumpy. The most effective views can be had from the stand, although it is difficult to follow the skier from this location. Do not forget to start the camera before the skiers appear.

You can end the film with a striking slow motion shot of a ski jump, in which the skier is silhouetted against the sky, or you could use the conventional sunset scene with the skiers returning to the train on the way home.

It is wise to have the manufacturer put thin oil in your camera, for otherwise you may find that it will slow down in zero temperatures. It is also advisable to determine exposure and position before taking the camera out of the case. If it is very cold, place one of those small pocket warmers, that slowly burn benzine, in the case to maintain a higher temperature than the outdoors. Underneath your mittens wear thin kid gloves and keep these on during filming.

Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* MOVIE MAKERS.

■ BASS CAMERA CO., Chicago, Ill., offers a catalog listing 16mm. silent and sound on film subjects.

■ BELL & HOWELL CO., Chicago, Ill., has the following new Filmosound releases: *Out of the Ordinary* and *The Cougar's Mistake*, each one reel; *Don't Divorce Him* and *Constibull*, each two reel comedies. This company also offers the 16mm. sound on film subject, *Three Centuries of Massachusetts*, which comes complete in eight reels, but each reel may be used as a separate unit. Prepared under the direction of Professor Albert Bushnell Hart of Harvard and accompanied by his narrative, these reels form a historical record of particular interest to schools.

■ EASTIN 16MM. PICTURES, Davenport, Iowa, has both silent and sound on film 16mm. subjects for rent.

■ EASTMAN KODAK CO., Rochester, N. Y., will be glad to send catalogs of 8mm. and 16mm. film subjects, on request.

■ EMPIRE SAFETY FILM CO., INC., New York City, has the 16mm. film, *Alice in Wonderland*, in ten episodes, each episode being a complete 100 ft. adventure.

■ GUY D. HASELTON, Hollywood, Calif., will send his Travelette booklet on request; 16mm. scenics in 100, 200 or 400 ft. lengths are offered.

■ HOLLYWOOD CINE FILM DISTRIBUTORS, Hollywood, Calif., offers *Pasadena Rose Parade*, the 1936 edition of the New Year's Day Parade and the annual football classic played this year between Stanford and Southern Methodist. This film is released in both 16mm. silent and sound on film versions.

■ KODASCOPE LIBRARIES, INC., New York City, offers a 16mm. sound on film version of the recent theatrical success, *Oliver Twist*, featuring Dickie Moore. Enthusiasts of Dickens will welcome this appealing story now available for home screenings.

■ ERNEST M. REYNOLDS, Cleveland, Ohio, has 100 ft. subjects for sale; *Highlights of Empire State* and *By Horseback Through Yosemite Valley* are included among others.

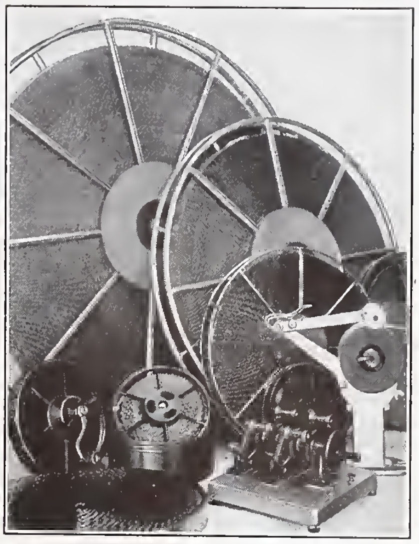
■ Y. M. C. A. MOTION PICTURE BUREAU, New York City and Chicago, Ill., features religious films for use during the Lenten season. These are for rent, and early bookings are urged.

Things people ask us

[Continued from page 16]

the pupil in the eye would do it, if it were contracted to just a pinhole in the front of the eye. However, it would take a long time to get the effect on celluloid. There are some photographers who have a lot of fun making pictures with pinholes. Remember that the pinhole serves to prevent a lot of rays from getting scrambled on the retina or the celluloid, by letting practically one ray through from each reflecting point. More light can be let in without scrambling by the use of a lens, which, although important, is, after all, a photographic refinement. The lens in the eye and the lens in the hole in the camera make it possible for a great many rays from any reflection point to be collected as they pass through them and then to be delivered, each group where it ought to go, on the retina or celluloid. You probably know enough, from your school course in Physics, to straighten out in your own mind the action of lenses, so that we don't need to go into the matter of why they collect and redistribute rays. The important fact is that, because of their capacity to do this, they can cut down the time necessary for the camera to photograph. This is the most important job of the photographic lens. In addition, these serve other extremely useful purposes. One special kind can take a wider picture. Another kind—comparable to the lenses in the eyes of the cat family, which see well in dimmer light than can human eyes—will take pictures in poorer light than can the primitive pinhole. A third variety—which we can compare roughly to lenses in birds' eyes—enables the camera to photograph distant objects in a larger size than the eye would see them.

We have used the human eye pretty freely to describe the operation of making a photograph, but there are important differences. A well lighted image flashed on the eye's retina lasts about one tenth of a second, after the eye is closed or turned to some other view. The same image flashed on the silver salts emulsion is there forever, although latent until it is chemically developed. So it is obvious that the human retina can be used over and over again, either to keep one image for a long period, allowing for eye strain and consequent distortion after a time, or to receive one image after another, retaining each one for about a tenth of a second. It is equally obvious that the photographic emul-



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  - Lewy Movie Service, 853 N. Eutaw St., at Biddle.
  - Stark-Films, 219 W. Centre St.
  - Zepp Photo Supply Co., 3044 Greenmount Ave.
- Cumberland: A. M. Lichtenstein, 61 Baltimore St.
- Hagerstown: R. M. Hays and Bros., Inc., 28-30 W. Washington St.

MASSACHUSETTS

- Boston: Eastman Kodak Stores, Inc., 38 Bromfield St.
    - Hotel Statler.
  - Film Library of New England, 239 Columbus Ave.
  - Ralph Harris & Co., 30 Bromfield St.
  - Iver Johnson Sporting Goods Co., 155 Washington St.
  - Leeds 16mm. Cine Service, 100 Boylston St., Colonial Theatre Bldg.
  - Andrew J. Lloyd Co., 300 Washington St.
  - Montgomery-Frost Co., 40 Bromfield St.
  - Pathescope Co., of the N. E., Inc., 438 Stuart St., cor. Trinity Pl.
  - Pinkham & Smith Co., 15 Bromfield St.
    - 292-294 Boylston St.
  - Solatia M. Taylor Co., 56 Bromfield St.
  - Visual Education Service, 470 Stuart St.
- Cambridge: E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
- Lowell: Donaldson's, 75 Merrimack St.
- Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
- Pittsfield: E. J. Curtis, Inc., 397 North St.
- Salem: Pitman Movie Service, 418 Lafayette St.
- Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
  - Harvey & Lewis Co., 1503 Main St.
- Tewksbury: Camera Exchange, 23 North St.
- Worcester: J. C. Freeman & Co., 376 Main St.
  - Harvey & Lewis Co., 513 Main St.
  - L. B. Wheaton, 368 Main St.

MICHIGAN

- Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
- Detroit: Crowley, Milner & Co., Dept. 124.
  - Detroit Camera Shop, 325 State St.
  - Eastman Kodak Stores, Inc., 1235 Washington Blvd.
  - J. L. Hudson Co., Dept. 290.
- Flint: Gardner Photo Service, 1425 Detroit St.
- Grand Rapids: Camera Shop, Inc., 56 Monroe Ave.
  - Photo Service Shop, 44 Monroe Ave.
- Jackson: Royal Film Service, 125 Michigan Ave., W.
- Lansing: Linn Camera Shop, 109 S. Washington Ave.
- Saginaw: Heavenrich Bros. & Co., 301 Genessee.

MINNESOTA

- Duluth: Eastman Kodak Stores Co., 3 W. Superior St.

(Continued on page 48)

sion will serve for only one picture and that, if we flash two or more on it, the eventual result will be a generally unpleasant combination, although this method is sometimes used for special purposes. While the eye can keep one image on its retina for a long period without serious impairment, the longer light is allowed to strike the photographic emulsion, the blacker will be the silver salts after development and the lighter will be the print, when we get the finished picture. Prints that look very washed out and give an all over dirty white appearance are those whose original negative has been subjected to too much light, which is called "overexposure." Prints that are very dark and shadowy and in which very few details can be made out are those whose original negative was not given enough light in the camera, which is known as "underexposure."

You remember we described our primitive camera as having a light tight box, a hole, silver salts on a flat piece of celluloid inside the box and some method of controlling the effect of the light. We did not specifically mention, although I am sure that you understood it, the fact that the simplest method of controlling this effect is to open and close the hole. We then saw the next control in the lens, which speeds up the photographic process by letting more light through. Now, if we have a lens in the hole, it is easy to jump forward to the possibility of refining our control in two ways. We can vary the time the hole is open for light to pass through it and we can modify the size of the lens. With these controls, primitive photography emerges into the field of variable manipulation and the camera becomes a practical tool rather than a mere scientific curiosity.

(To be continued)

News of the industry

[Continued from page 29]

from drying out and becoming brittle, increases its resistance to wear and renders it impervious to water and oil. In this treatment, the film is placed, on the reel, in a special pressure chamber, where it is subjected to the action of certain gases. The service is offered by Peerless Film Processing Company, 130 West 46th Street, New York City.

Picture book ■ *Captain Teddy and Sailor Chips*, photographs and text by Creighton Peet, price, $2.00, published by Loring and Mussey, 66 Fifth Avenue, New York City, is a story of the adventures of a youngster and his dog, told in photographs. Creighton Peet, who made the series of "stills" published under the title, *Mike the Cat*, is a master of the art of capturing human interest, and this book, intended for children, is evidence of his genius at selecting viewpoints and subjects that would escape the less imaginative. Movie makers will find in this collection of pictures innumerable suggestions for genre subjects in New York's harbor.

Planning home movie programs

[Continued from page 25]

Manchester. The latter is probably unique in the annals of amateur newsreel making. Ten cameramen cooperated in filming H. M. The King when he visited Manchester in July, 1934, and succeeded not only in getting an excellent picture but in making the only complete cinematographic record in existence of this historic occasion. The program was completed with a reel of Dufaycolor assembled from the personal work of various members.

You will note that no film in the collection covered the same ground as any other, except the two lots of personal pictures. But, as one of these was in color and the other in black and white, the overlap was scarcely noticeable. On the other hand, the bill included amateur films of many types and therefore it never gave members of the audience enough of any one subject to bore them. Yet, it impressed the guests with the variety of subject matter which can be and is being made by movie makers.

Free films

■ *To borrow the films listed in this department, simply send in your name and address to Amateur Cinema League, Inc., 105 West 40th Street, New York City, specifying the* TITLES *of the films desired. When films are limited to groups, the type and approximate size of the audience must be given. Films are loaned free except for postage. All transactions regarding booking dates and shipping arrangements are effected between distributor and applicant after the League has forwarded name and address of applicant to distributor. Please do not request a list of films from which to make a selection, as no list is available. Any one in the United States may apply for films reviewed, as this service is not limited to League members.*

■ *The Toymaker's Shop*, a 16mm. sound film issued as either a one or three reel picture, is an appealing presentation of a play staged by the handicapped children of the Shriners' Hospital for Crippled Children. It is produced by the Ray-Bell Films, Inc., and is available only to groups.

■ *Balloon Racing*, a 16mm. silent film in one reel, is reviewed through the courtesy of the Goodyear Tire and Rubber Company, its producers. Here are portrayed all the colorful and exciting scenes that take place just before the takeoff of a balloon race. For months before the race, the contestants have been preparing for this final moment in a sport that is unique in its requirements of skill, courage and endurance.

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(Continued from page 46)

Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
St. Paul: Eastman Kodak Stores Co., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
F. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Three Forks: Olsen Studio, Box 488.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O St.
Omaha: Eastman Kodak Stores, Inc., 419 S. 16th St.
J. G. Kretschmer & Co., 1617 Harney St.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc., 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Hawthorne: Hawthorne Home Movie Service, 142 Cedar Ave.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Sykes Drug Store, 179 Market St.
Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman Bookshop, 380 Springfield Ave.
Trenton: Dwyer Bros., 127 N. Broad St.
Stewart's School Films, 21 Liberty St.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 975 Flatbush Ave.
Buddy's Novelty Shop, 785 DeKalb Ave.
Camera Corner, Inc., 80 Willoughby St
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Corning: Ecker Drug Store, 47 E. Market St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Hempstead: Agnew's, 47 Main St.
Howard Beach: Heller's Pharmacy, 100-20 159th Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
Ollie V. Crennan, 498 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Columbus Photo Supply, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co., Inc., 10 W. 33rd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 323-5 W. 37th St.
Meta Photo Supply Co., 126 Liberty St
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
Henry Westpfal & Co., 4 E. 32nd St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: A. M. Knowlson & Co., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Edwin A. Hahn, 223-225 Columbia St.
Waterloo: Conant's Art Shop, 17 E. Main St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave., N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St., W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 648-652 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.,
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Toledo Camera Shop, 1221 Madison Ave.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., Cor. 4th and Boston.

OREGON

Lakeview: Getty's Photo Studio, 536 G St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: American Junior Studios, 725 Florida Ave.
Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: W. F. Drehs, 541 Court St.
Scranton: Scranton Home Movies Library, 316 N. Washington Ave.
Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.
H. H. Page, 115 N. 6th St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
Harrisonburg: Harrisonburg Hdw. Corp., 38 N. Main St.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford., 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., E. Wisconsin & N. Plankington.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.

Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ALGERIA

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia Sud Americana Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New Sauth Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne Cl: Charles W. Donne, 157-159 Elizabeth St., Cor. Bourk St.
Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City. Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave.. W.

British Calumbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores. Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Orillia: Stewart Studio, 107 Mississaga St.
Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Eastman Kodak Stores, Ltd., 66 King St., W.
T Eaton Co.. Ltd., Dept. D30. 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores. Ltd., 286 Craig St., W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Nygade 2.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.
Y. Ebata & Co., 88-90 Kesawan.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.
Cairo: Kodak (Egypt) S. A., Midan Ibrahim Pacha, Continental Bldg.
20 Sharia Maghraby.

ENGLAND

Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbin's, 131 High St.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 62 Piccadilly.
111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.
Yorkshire: The Midland Cine Service, 19a Briggate, Shipley.
Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Photo-Lux (Bell & Howell Sub-Agent), 37 Cours Clemenceau.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.

FRANCE

Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Batzer (Bell & Howell Sub-Agent), 11 Place de la Bourse.
Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.
Toulouse: Martin-Gautie (Bell & Howell Sub-Agent), 10 rue Alsace.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Hague: "City", Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
van Hoytemastraat 51-53.

INDIA

Bombay: Continental Photo Stores, 253 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., Ltd., 154 Dharamtolla St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A. Avenida Madero No. 43.
Casa Calpini. S. A., Av. Madero 34. Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Foto Regis, Sole Agents for Victor Equipment, Cor. of Hotel Regis.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 70 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORWAY

Oslo: A/S Narvesens Kioskompani, Postboks 125.
J. L. Nerlien. A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa. Lemare & Co.), Villalta 220. Apartado No. 813

PHILIPPINE ISLANDS

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct, 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SOUTH AFRICA

Cape Pravince

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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■ 16MM. SOUND ON FILM equipment, attached your projector, $110.00 up; sound heads attached, including photo-cell, optical system, exciter lamp, $60.00 up. TRUETONE SOUND SERVICE, 46-53 11th St., Long Island City, N. Y.

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■ RCA Victor 16mm. sound camera with critical focuser, *f*/3.5 lens, studio attachment, carrying cases complete, demonstrator, guaranteed factory condition, $425.00 COD subject inspection. S. HOWE WILLIAMS, 2703 Grove, Richmond, Va.

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■ BURKE & JAMES, national headquarters for bargains since 1897 in still and movie equipment. Hundreds of 16mm. lenses, from 2″ *f*/3.5 at $9.95 up; items too numerous to list here; cameras, projectors, screens, meters, lights, trick equipment, genuine Stewart-Warner repair parts, etc. You should have our Bargain Bulletin No. 36 free; inquiries get prompt action; write now. 223 W. Madison St., Chicago, Ill.

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

FEBRUARY, 1936

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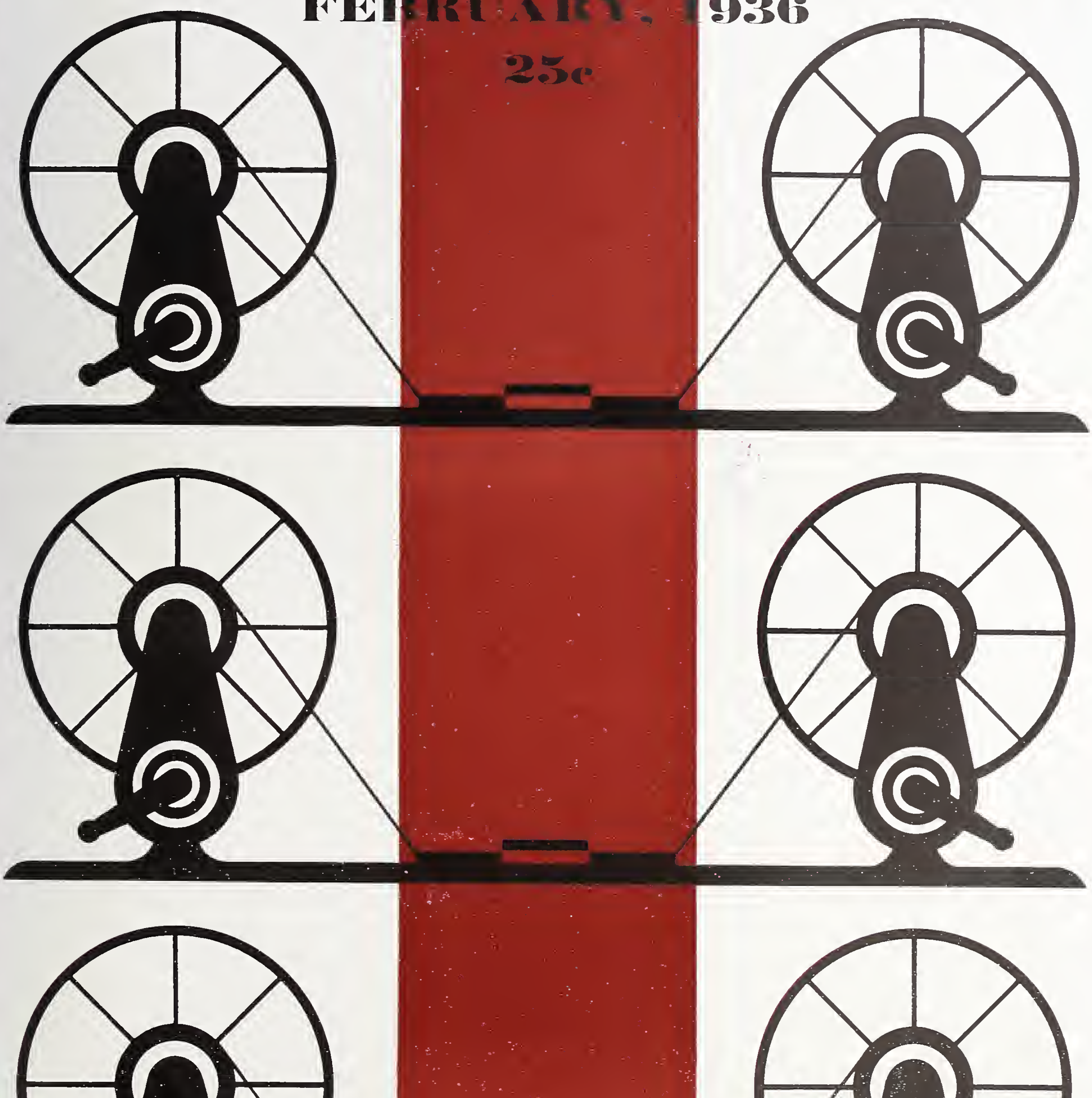

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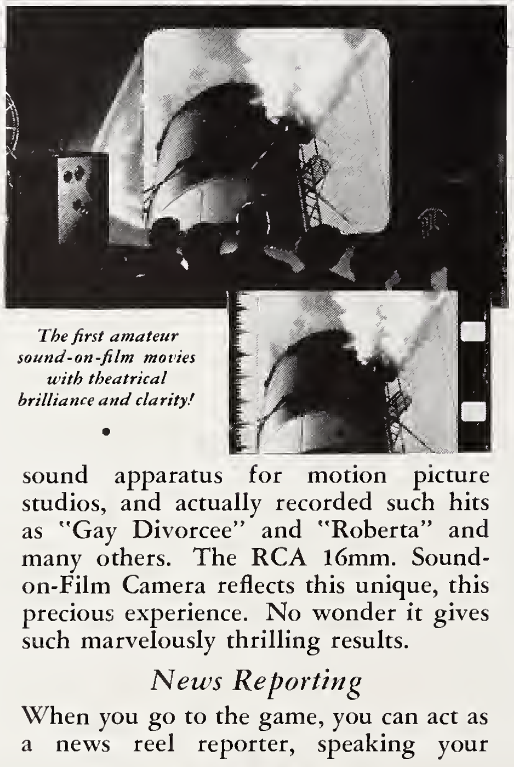

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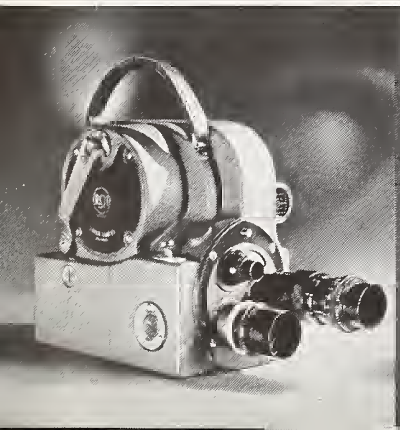

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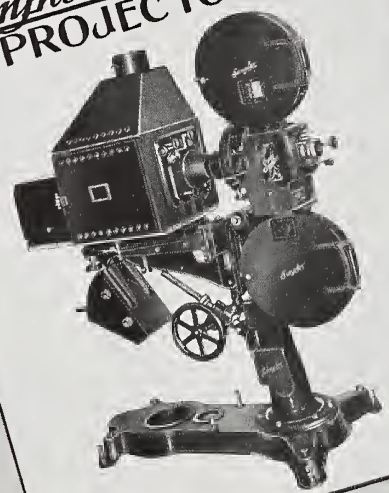

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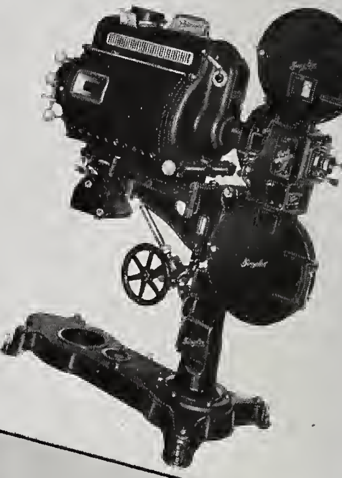

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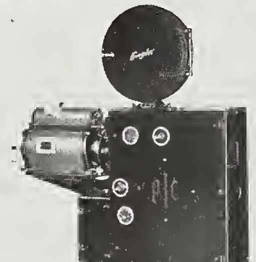

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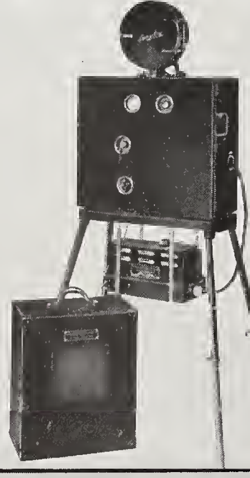

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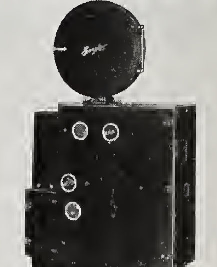

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MOVIE MAKERS

Muller-Bradley

The magazine of the Amateur Cinema League, Inc.

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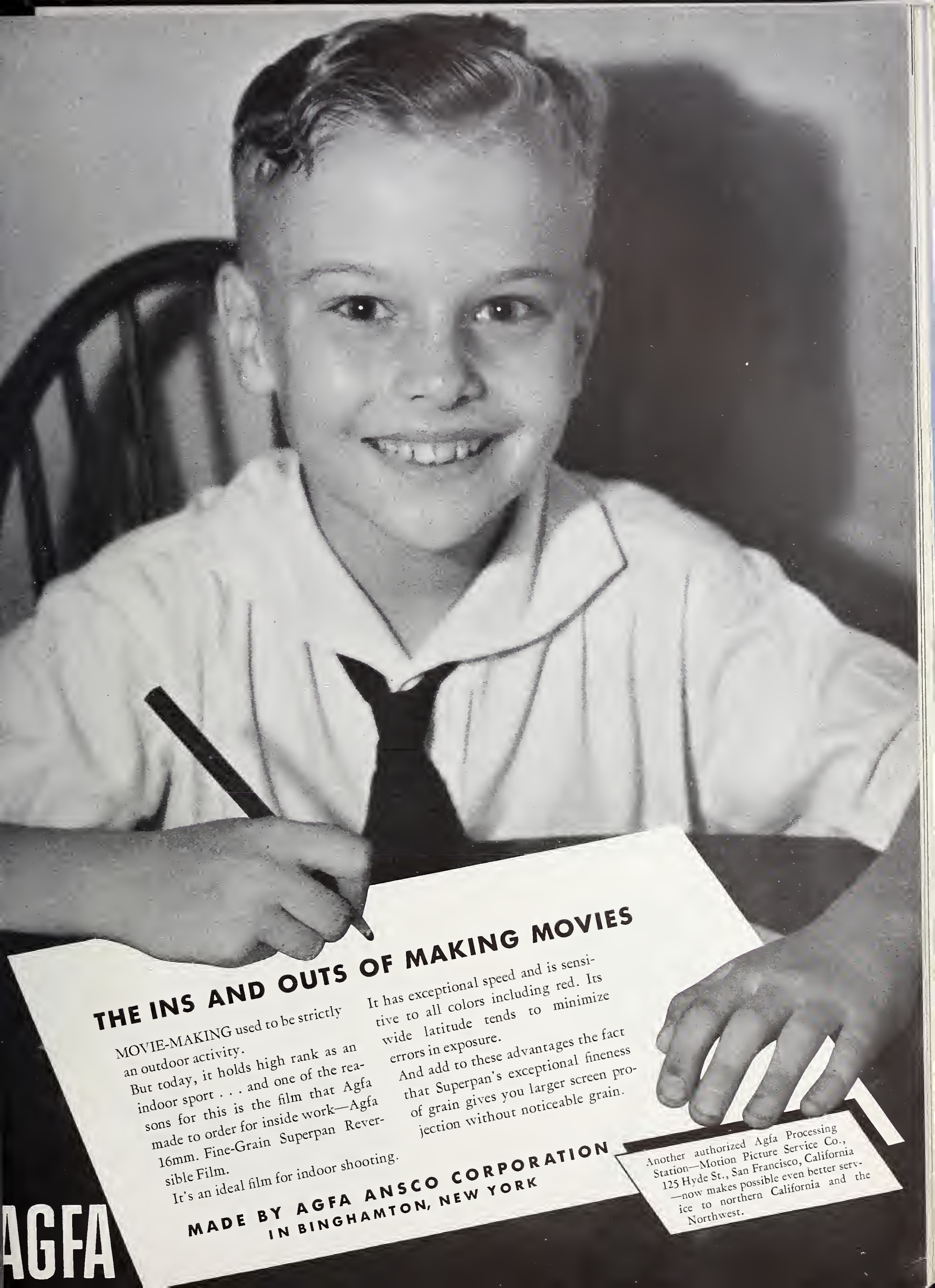

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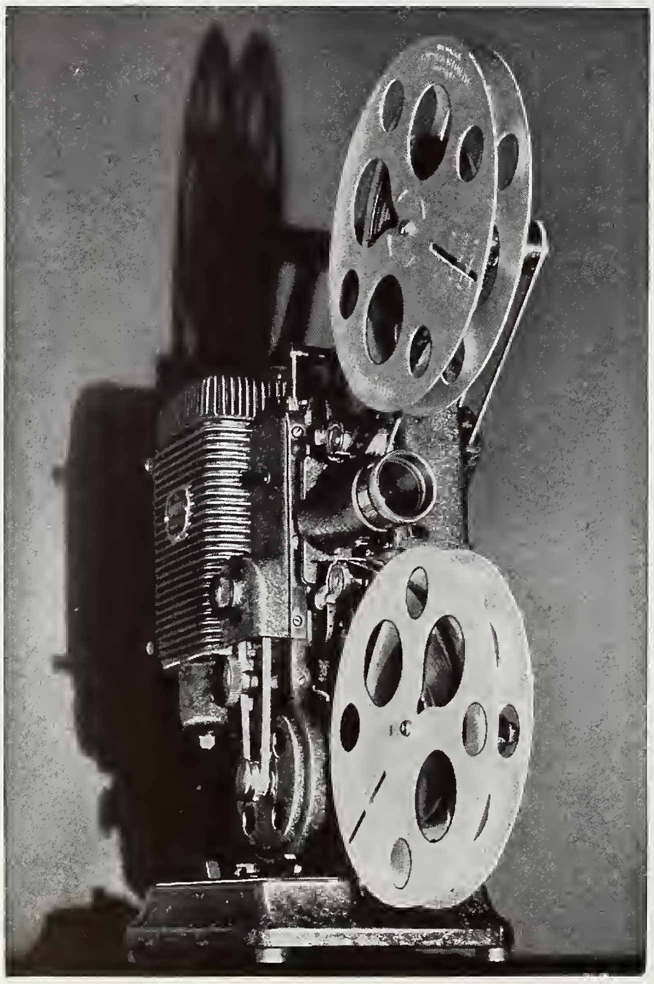

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whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

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The people behind

It is easy for a magazine like Movie Makers, devoted to the pursuit of a special avocation, to put so much emphasis on the way the wheels of our hobby go round that it loses sight of the human beings who make the wheels revolve and of the human incidents and relationships of movie making.

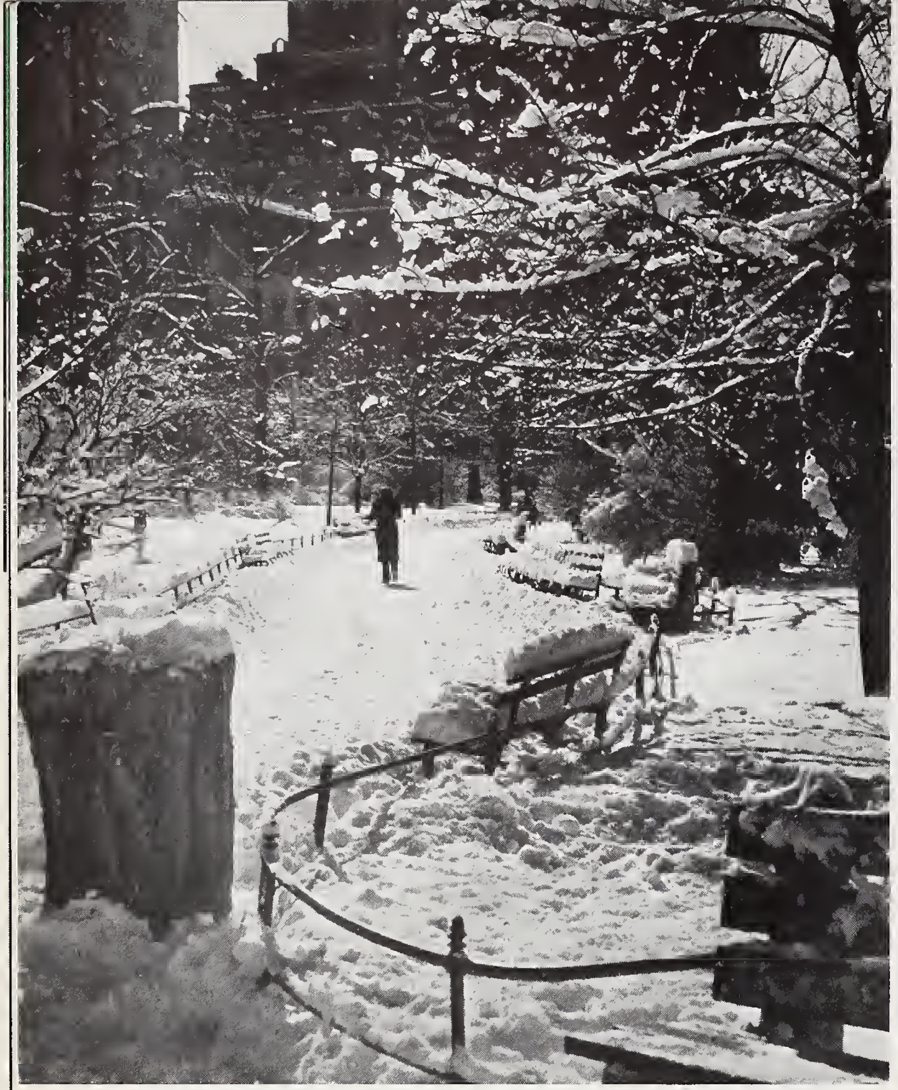
There is much to be written about. There is such a genuine call for direct instruction in camera work and continuity handling that many pages of each number of this magazine must contain frank and, for the most part, unadorned teaching. So many movie makers are doing interesting things with their equipment that space must be found to report these things. Whatever the theatrical movie world produces that has interest for the personal filmer must be hunted out and commented upon. The new offerings of the amateur movie industry must not be overlooked. The desire of personal contrivers to build something to use in their filming must get recognition. Scenarios must be offered.

Anybody unfamiliar with home filmers might read Movie Makers for several months and come to the conclusion that the men and women who make amateur motion pictures are essentially nothing but filming machines, undisturbed by any human emotions and undeflected by any of the obstacles that get in the way of most human efforts. They might shudder to think of being asked to know and to consort with these single purposed robots who push the noses of their cameras into the most complex social relationships without blinking an eye and who get their footage like the "Mounties" get their man.

Those of us who do the actual button pushing know that personal filmers are just the ordinary "run of shad" men and women and that, behind every hundred feet of pictures made, there exists a person who is half shy and half determined, half preoccupied with technical problems and half bedeviled by considerations of how to carry on his filming without making an unholy ass of himself as a social individual. He is torn between a desire to make the best movie of which he is capable and a wish to compromise the technical necessities in order to remain inconspicuous. He knows that the advice Movie Makers gives him, and the stories it presents to him of what his fellow filmers have done, all too frequently leave out the plaguey human equation.

We want quite a bit more of that human equation, although it is the most difficult thing to elicit. We want to know how you contrive to assemble a reel of pretty fair movies, in the face of the rest of the family wanting you to do something else. We want you to tell us how you satisfy your wife's insistence that you should film this or that, when you know you don't want to film it and would probably do a poor job of it, if you tried. Also, we should like to know what your, wife and your children would really like to have you film. We are curious to learn how you managed to get ten people to appear in your pictures, on some holiday afternoon, without wrecking what, otherwise, might have been a pleasant tea, cocktail party or picnic.

We should like to talk for a while about the human side of filming and we ask our readers, therefore, to write us about it. With your help, we should be able to get into the pages of Movie Makers some of the people behind the lenses.



Muller-Bradley

Two scenes for a winter cruise reel

Publishers'

MOVIE
MAKERS

Southward, ho!

JAMES W. MOORE, ACL

What may go into winter cruise reel of southern ports

SO you're going on a winter cruise! You're off for the Caribbean, where the water seems more blue than the sky and both cry out for color film! You're off for bright suns and nodding palms, for cream white tropical cities and the symbols of romance! Your bags are packed with film and fine feathers, as you wonder happily what lies ahead. Now, as the snow falls from gray skies, let's look over what there is to shoot around the Spanish Main. Since you won't have enough film in any case, no matter how much you take, it may help some to check over the possibilities.

Havana, the Paris of the Indies—there is a place you will not want to miss! If you arrive as early in the morning as we always did, the light will not be too good for shots of the Morro as you turn into the harbor. You might try a silhouette effect against the growing dawn, or you can wait till later and get it from the shore. If you do shoot from the ship, remember to keep the scene on board by framing it through the ship's rigging. Hold your camera still, letting the progress of the vessel give you the change of view. It's the sweetest, smoothest camera truck you'll ever see.

Down where the ship ties up, you will find the older part of town. Here, the narrow streets, grilled windows, arched doorways and open patios suggest the beginning of a comparative treatment for your filming in this city—the old against the new. Nowhere in the West Indies will you find it so pat and so easy to build up this idea into good sequences. While you are down in this section, don't overlook the modern trolley which comes clanging down a street so narrow that it crowds you and everybody else against the walls or into doorways for shelter. It is part of the life in the old city and the Habaneros take it in their stride.

Uptown, it might be as well to start with the new capital building, the pride of Cuba and a stunning structure when filmed against a heavily filtered sky. From there, you can lead naturally to the Prado, Parque Central and the busy, cosmopolitan scenes that are modern Havana. In this section, you will find the famous Sloppy Joe's, almost a "must" stop if your story of the city is going to click back home. Try to tear yourself away from the *daiquiris* long enough to get a sequence of the place, starting from the outside and working in to scenes of the grinning barmen mixing your friends a round. The walls are wide open to the sky, offering adequate light for a fast lens, and you'll find the barkeeps more than used to picture taking. Of course, if Tropical Gardens is your stop instead, there'll be no question of the light, since the service is more or less outdoors anyway.

Getting a bit more out of town, you will drive along the Malecon, or sea wall, on your various ways to Vedado, the beautiful residential section, La Playa for bathing, the Casino for a trial of your luck or Oriental Park for the races. Any or all of these subjects offer good material for rounding out your picture of the new Havana. On the way back, we come to the place from which to film Morro Castle from the shore. Our favorite spot is near the Maine monument, near the city end of the Malecon. Keep an eye out for good framing of the old fort with some objects in the foreground and, if you can manage, wait till a steamer is slipping by on her way out. It makes a perfect ending for your Havana stuff.

Kingston, second only to Havana in importance among the Caribbean cities, will give you equally attractive if quite different kinds of cine material. The first subject which you can't (and shouldn't) resist is the beautiful setting of this bit of empire in the Indies. Abrupt, towering hills, shrouded with mist and capped with great clouds, frame Kingston like a cameo. It probably will be better to give your time whole heartedly to recording this stunning harbor than to try and break into it for shots of Port Royal as the steamer slips by. What is left of this fabled pirate haunt, believed once to have grown so wicked that God sank it beneath the waters, seems far less picturesque than it sounds. You will find it on your right, as you round into the roadstead, an unimpressive huddle of drab huts.

In Kingston, you will not get the feeling of old and new, but rather one of order and universal cleanliness. The time to start your filming of this theme comes even before you step ashore—with the punctilious arrival of the port doctor's launch. You will see it come sliding up, round under the stern and make a perfect contact with the ship's ladder. It is high time to start filming with this incident, for you will not want to miss, we think, the immaculate white fringes around the cabin, the proudly uniformed—but still barefooted—blacks serving the British Empire and, finally, the starched, helmeted and properly bored surgeon of the port. We hope, for the sake of your film, that he pauses half way up the ladder to look sadly at his white gloves, newly soiled on handrails which can never be quite clean enough.

Once ashore, you can carry on this idea of the well run colony by getting scenes of the white jacketed but black skinned police, the gleaming white buildings and the bustle of orderly streets. Just off Harbour Street, the main thoroughfare up to town, you will find a statue of Queen Victoria gazing with stern fondness on these scenes of order and rectitude.

Hope Gardens, where you will surely drive outside of the city, would have pleased the Widow at Windsor. Here, all the wonders of tropical flora are marshalled for

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Systematized editing

EDWIN SCHWARZ, ACL

SYSTEM counts for everything in film editing.

Although an efficient and comprehensive system may seem complicated at first, actually it will save hours of time, as any movie maker can prove to himself by trying a good one. At present, I rarely take more than one evening to edit 600 to 800 feet of film.

The equipment which I use is as follows: projector with reverse action, small screen or sheet of white paper, typewriter, rewind outfit, viewer, dry splicer, paper clips and old 100 foot reels. The viewer is not essential but it aids in locating the different scenes and in discovering the exact frame to be cut.

First of all, I number the paper boxes containing the 100 foot reels to be edited. Then I place the typewriter alongside the projector where I can operate both conveniently. Then the first reel is placed on the projector, which is operated at a slow speed. As the various scenes appear, I type the following information about each one:

(1) a short statement that identifies the scene (using abbreviations);

(2) in the case of panoramas, the direction of the "pan", in order to avoid the mistake of following a panorama made in one direction by another made in the opposite direction;

(3) the photographic quality, indicated by such words as *poor, good, excellent, dark, light,* etc., (this facilitates placing the most striking shot at the end of the sequence and eliminating the bad effect of having a dark scene follow a light one);

(4) directions, such as *cut,* or *cut end, use as introduction to action, long shot, medium shot, closeup, short* or *long shot* and any other information that will assist in deciding the scene's most effective place in the film.

If one knows the touch typing system, he will be able to complete a 100 foot reel in five to six minutes and, if not, it will be necessary to stop the projector after each scene to write the comments.

Direction of action may be a note of value for editing

The next big step is to work out the continuity — the arrangement of the separate scenes. This usually takes a little thought, but it will be comparatively easy if some plan has been followed while filming.

A carefully worked out procedure to speed up process

I always have the typed lists handy and, whenever a few moments are available, I start mulling over the various scenes to determine the method of presentation. I list the main subjects on a three by five card, leaving a wide margin on the left side. Then I decide the order in which the main subjects are to appear and note this by numbering the card in the margin close to the wording. For instance, in a film of Yellowstone Park, there will be several scenes of Old Faithful and perhaps many more of the Grand Canyon and Yellowstone Falls, the Mammoth Hot Springs, the bears and so forth. By listing the various groups as such, you can more readily determine that, perhaps, the scene of the Grand Canyon should be last and those of Old Faithful should come first. Thus you can produce a master card or guide to the detailed editing.

Next, I run through the list of scenes, making a line completely across the margin wherever a scene is to be cut out. I make a short dash or dot in front of those scenes that are to be included in the first division on the master card. This draws one's attention only to those scenes that are to be considered at the present time. The next step is to start numbering the scenes or groups of scenes in the order that they are to appear in the finished picture. If several scenes happen to be listed on the sheet in the same order that they are to appear in the finished film, then I give all these scenes one number, using a bracket to indicate the exact shots included under this number.

I continue numbering the scenes until I have finished with all the shots that belong in the first group noted on the master card. Then I proceed to start on the second group, by placing a dash or dot in front of all scenes belonging to that group. Should one be interrupted in this work, he can note on the master card the last number to be used, which will indicate where to start when the editing is resumed. You will find that this method will enable you to use all odd moments, as one can drop the work any time and pick it up again with little loss of time.

In case I make the mistake of omitting a scene or later decide that one should go ahead of another, I do not erase the numbers but use a letter after the numeral to indicate the added scene.

Now one is ready for the cutting and splicing. Here again, system means efficiency, while the proper layout of equipment also speeds up the work. I place the viewer at the left of the splicer and have both of them in between the two parts of the rewind outfit. I have found those two ounce flat chemical bottles with glass stopper and rod to be most economical on film cement and fastest in operation. The outside of the neck of a bottle of this type is ground and a tight fitting glass cover is provided. Vaseline can be used on the cover to insure an air tight seal, preventing evaporation which consequently thickens the cement.

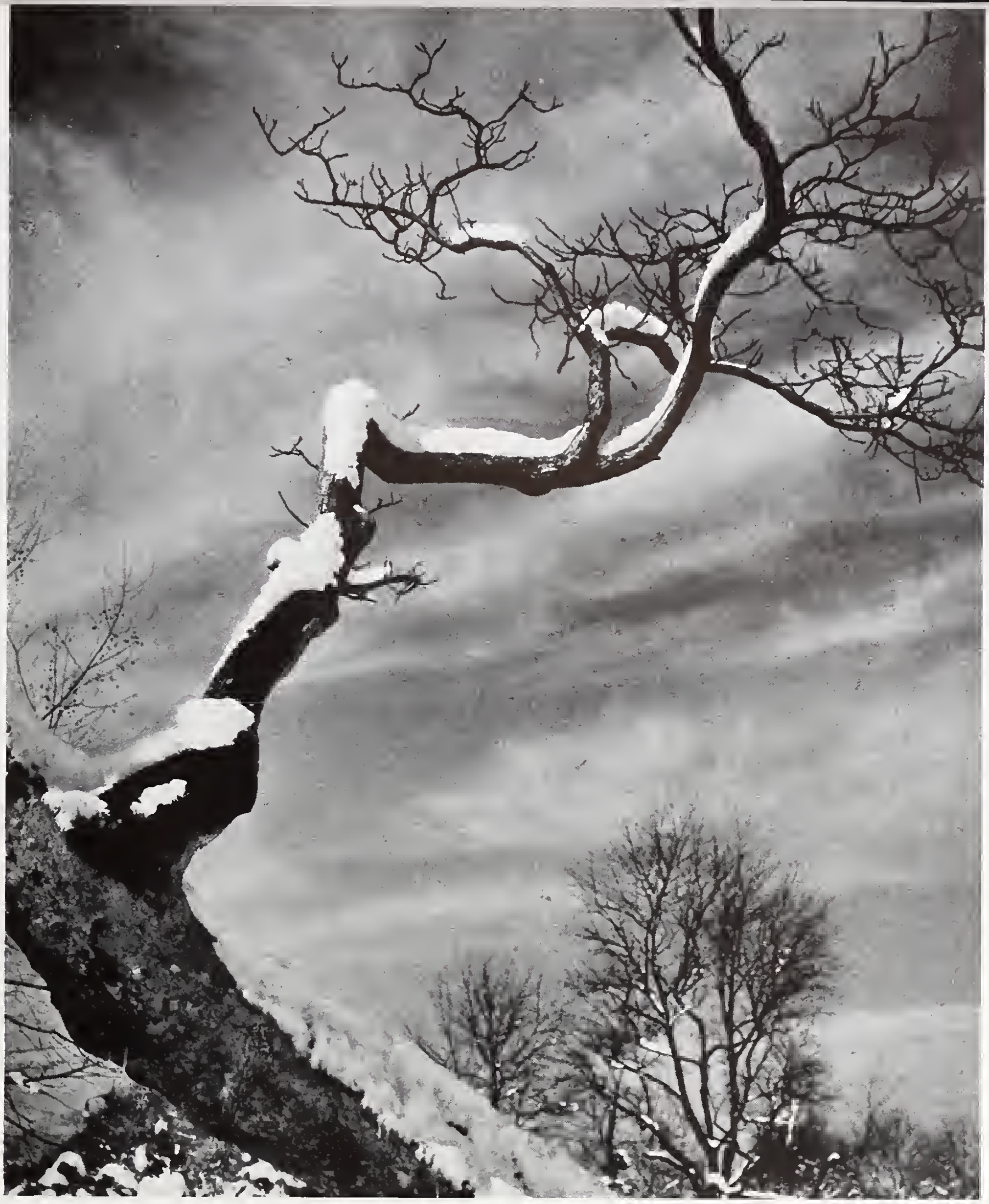
Alongside the splicing table, I have another table on which I place small cards that have been numbered from 1 to 100. These are about the size of a business card. They are placed in numerical order in rows, five

[Continued on page 78]

Philip D. Gendreau

Focus means sharp details on screen in projected film

Continuing a series of questions from a puzzled friend



Muller-Bradley

Things people ask us

ROY W. WINTON, ACL

WHAT do you do when a friend says, "Tell me all" about this or that in your filming? When you are asked for the "hot dope" on exposure, when somebody wants to know why a film is fast or a lens slow, do you let your technical stars fall on Ashtabula or Xenia, blinding your fellow citizens with glittering facts about *f* numbers and focal lengths? Or do you begin—"Well, you see it's this way. A focal length is just the way—Say, Bill, how about a little bridge?"

This is the third reel of a conversation between the writer and one of his friends who refused to be put off.

All right, I get the general idea of how you take photographs, although I could ask a lot more. But, tell me something about movies. You always speak of photography as if it were nothing but a part of movie making, but I don't see how you get motion on what you call an emulsion. I should think motion would show up in streaks and blurs, like those I've seen on snapshots. I know they're caused because somebody moved. I suppose a movie film looks like a lot of streaks and continued blurs that come out all right if you run it fast enough when you throw the picture on the screen.

You don't see how to get motion on an emulsion? Well, nobody has ever done it, and I don't see how anybody ever can. Although it will help to give you a motion picture on the screen, a picture on a reel of movie film is as motionless as the Sphinx; whatever image is caught on it by its emulsion is a fixed image, unable to come to life. If there are streaks and blurs on it, those streaks and blurs will be on the screen, just as they are in a snapshot. The magic of movies is not the magic of an emulsion.

Remember that an image stays on the retina of the eye about a tenth of a second before it is replaced by another. On that fact rests the whole theory of motion pictures. If you put one picture after another on a movie screen more rapidly than the rate at which the eye shifts from one image to another, these pictures will tie into each other in our vision and the change of position in each of the moving objects of the successive pictures will appear to be continuous. The rate at which most silent movies shift from one picture to another is sixteen a second, which is faster than the tenth of a second required for the eye to do this. Actually, motion pictures are nothing but a series of snapshots—or still pictures—that give you sixteen flashes every second (in most instances in silent films) of whatever motion you are photographing.

But nobody can take sixteen different snapshots a second—

No *body* tries to do this by using a still camera. But, if a body cannot work that fast, a ma-

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Cine novelties for interior shooting

RUSSELL C. HOLSLAG, ACL

THERE is a place for color and there is a place for black and white. We must not forget that, up to now, the great majority of the effective stories that have appeared on the theatrical screen have been made with monochromatic film. Let the amateur not forget the possibilities offered to him by black and white. In fact, this medium has a special, utilitarian value during the indoor season, for it is available in fast, panchromatic emulsions. These enable one to get satisfactory indoor pictures without having to use an especially fast lens and with the simplest of lighting equipment.

So let us assume that your camera, equipped with an *f*/3.5 lens, is loaded with supersensitive film and that you have an ambition to achieve something out of the ordinary in indoor filming. Maybe you can also boast a single or double lighting unit on its stand and also one or two low priced reflectors that clamp anywhere. As for the camera tripod, we will leave that to your conscience.

Anyhow, you're out to film something that will make your audiences sit up and take notice. Have you ever put your mind on making a really good portrait shot? Of course, you've made lots of pictures of people, but did you ever really consider the position of the subject and the arrangement of the lighting?

"But," you will say, "why propose that I take closeups of people? I've already done that with everybody in my home! I thought we were going to try something less usual!"

To this, we reply that a well planned and well photographed portrait of the most familiar person will be received with acclaim by the movie audience, because an animated portrait, taken with this kind of consideration, *is* unusual. So, let us see what we can do.

The safest guarantee of good results is to follow the arrangement which is referred to as "forty five degree front lighting." This is really a very effective set of lighting directions, telescoped into a formula that is simple to follow. The subject faces the camera. If you were to drop a plumb line from his nose to the floor, the starting point would be provided. From such a point, one draws an imaginary line to the left or right (usually toward the subject's right), forming an angle of forty five degrees to the plane in which the subject is placed. The principal light, on its tripod, ought to rest somewhere along this line. Now, raise the light up until an imaginary line, drawn from the light to the subject's nose, forms an angle of forty five degrees to the floor. There you have the secret. Such lighting will be found to give excellent modeling and a pleasant sense of the face's contour. How close should the light be placed? In general, for a closeup, about four or five feet from the subject. Naturally, the lighting unit itself should not show in the picture. Therefore, you can bring the light as near as possible to this limit, in order to make the most of its illumination.

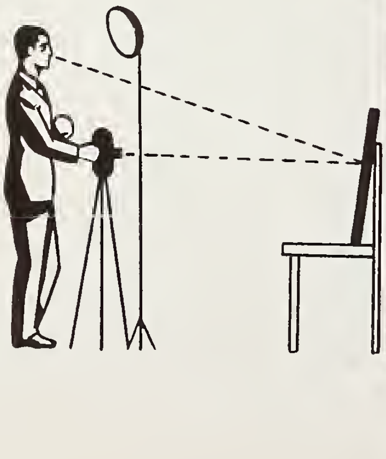
Three simple cine stunts which are treated here fully

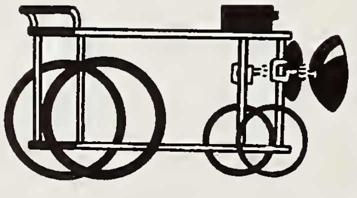
A challenge to all indoor filmers who seek the unusual

It may seem to make the matter a little more complicated but, in filming cine portraits, one should consider the difference between a soft and a hard light. With bulbs of the flood type, the source itself is diffused but, if the reflector in use is highly polished and shiny, the light that reaches the subject may be somewhat hard; that is, it may cast sharp, unpleasant shadows.

A piece of thin cheesecloth, thrown over such reflectors will soften the light very nicely. Throw the cheesecloth over the front of the reflector just before shooting; if you leave it there too long while the light is burning, it may begin to scorch. Tissue paper, handkerchiefs and other translucent substances will work, but it is better not to use them, as they may absorb too much light.

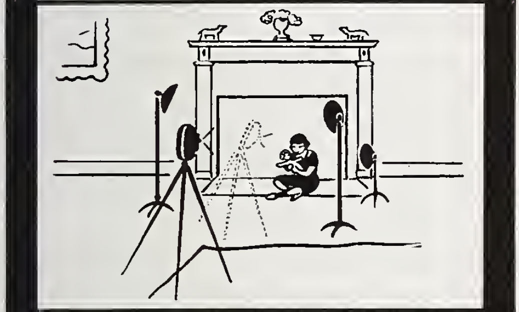
There is one more highly desirable aid in making interior closeups, which you are strongly advised to use. This is the smaller, auxiliary lighting unit, on the opposite side of that on which the main forty five degree light is placed. Such a source could be one of the little clamp reflectors which might be attached to the back of a chair. This auxiliary light should be about on a level with the head of the subject and placed directly at the side, not toward the front. It need not be softened nor diffused, but one should see that it does not glare into the camera lens. With such an arrangement, a good exposure can be had with supersensitive film at *f*/3.5. If you have not an auxiliary lighting unit like this, use a good, large reflector, held at approximately the same position, so that it will catch the main light and throw it back on the shadow side of the subject. Or, if you have daylight outside, you can so place the subject that the side light coming in through a window will lighten up the shadows cast by the main light. Or, if the daylight is strong enough, it can be made the main light source, with the electric as the auxiliary. If you use daylight in this way, [Continued on page 85]





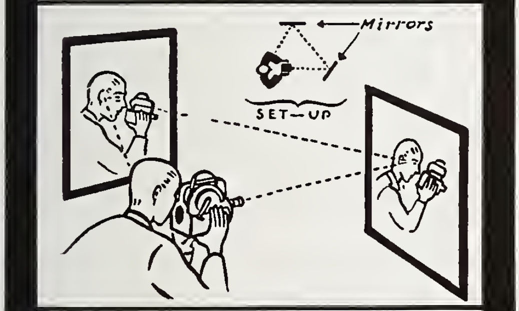
Timely cine ideas

If you will have success with an exposure meter of the photoelectric type, you must remember that it always takes an average reading of its entire field. With that in mind, it is easy to see why this movie maker has crept up to his small daughter to take the reading. He is using his meter close enough so that the child in her dark clothes forms a major portion of the field included by the meter. In this way, he avoids the large areas of bright snow and sky which would tend to indicate a stop that would badly underexpose the child herself. It is a general rule that the meter must be brought as close to the subject as would seem reasonable. The meter should not be used from the camera position if one can get closer.



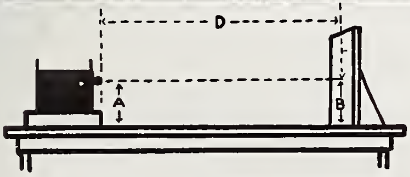
It is important to know that the distance from the camera to the subject has negligible effect on the exposure but that the distance of the lights from the subject has a great deal to do with it. Either of the two camera positions shown in the illustration could be used without moving the lights or changing the exposure. For outdoor work, especially in color, it is advisable to open the lens almost a full stop for closeups in order to get more detail in the shadows, but this rule applies with less force for indoor work and then only on real closeups. An ideal setup, such as shown, permits considerable freedom in placing the camera without changing lights.

It would be easy to enliven a winter film with an introductory, outdoor title. Letter the title with white paint on a piece of black cardboard and, when this title card is prepared, bury it in the snow in front of the camera. By sighting through the finder, one can get it within the field sufficiently well, and the snow will support it at a slight angle so that it will be parallel to the lens. Then, when the camera is started, have an assistant shovel off the snow to reveal the title. A variation is to cover the card lightly with snow and to blow it off. Or, start with a clean title card, film it in reverse motion and, at the end of the shot, sprinkle snow over it.



Those who own a 16mm. sound camera of the newsreel type may achieve complete lip synchronization by means of the scheme illustrated here. By the aid of two mirrors, arranged as shown, the lens will record a profile view of the operator, himself, talking into the microphone at the back of the camera. The mirrors may be arranged correctly by sighting through the finder. A sound film, made in the normal way by the use of the newsreel camera, may be considerably livened up by cutting in a judicious number of these extra "announcement" shots, which show the operator himself, with his lips moving in synchronization with his voice.

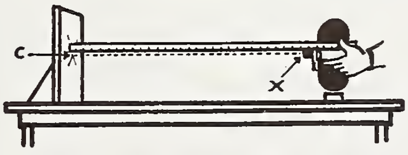
The effectiveness of bright colors against the white snow suggested this Kodachrome or Dufaycolor title for a winter reel. Cut the lettering as a stencil in a piece of plain, light cardboard and place this over an even, clean area of snow. (The snow may be banked to support the cardboard parallel to the camera lens.) Prepare a solution of any common household dye of a suitable bright color and fill an insect spray with the dye fluid. When the stencil is in place, spray it liberally with the dye so that, after the stencil is removed, the letters will appear in color on the snow. A shower of snow at the end would give the effect of a final fade out.



D=distance at which title card will be covered by the lens.

B=half the height of the title card, which should be equal to A.

In making titles without the aid of a titler, centering the title card in the camera's field is the chief problem. With the box type camera, this may be done by first discovering the field through the finder and then centering the camera vertically by means of the measurements shown in the illustrations. The envelope camera can be centered by holding a straight edge tightly against the camera door and parallel to the table. The offset between the ruler and the center of the lens at X should be the same as between the ruler and the center of the title board shown at C.



X=offset of the yardstick from center of lens.

C=corresponding offset from center of title card, as previously found.

When they come back

J. F. HOLDEN

DEAR Mr. Porter:

Thanks for your kind letter of the twentieth, also for the loan of your Kodachrome films. I thought they were excellent. It's true that we all have a great deal to learn about color. Not only are there many variables that affect making a picture but there are also factors which affect our individual interpretations of what we see.

You asked me in your letter to give you some hints on how to edit and store films after they have been returned from the developing laboratories. This has always been an interesting phase of movie making to me. What to do depends a lot on the individual. Most of us enjoy making and projecting pictures, but their care and arrangement may seem like a lot of hard work.

Some years ago, I began to think about all the reels of films that I had made and which were stored or scattered all over the house. I counted up the number of rolls I had exposed from 1923 to 1928. The figures were surprising. I had no idea that I had so many. I could easily imagine what the house and films would look like in another ten years, if something wasn't done about it. Up to that period, I had not edited my pictures.

Then I went on a vacation to the West Coast and, while there, I visited some of the studios. I saw a number of daily takes projected, all of which looked meaningless to me. Later I saw the same films when they ran at the local theatres. The titling, editing and finished arrangement made a story out of what had been miscellaneous, meaningless pictures.

I had learned a valuable lesson. The theatrical pictures were worthless and uninteresting until they had been arranged and titled for presentation. If it improved Hollywood films, it surely would help mine. I laid out a program. I had invested hundreds of dollars in this hobby of mine. That investment was worth protection. I would see that the films I had were properly stored and cared for.

Above, storing the reels and, below, editing with ease

What to do with a heterogeneous lot of finished films

I would edit the films so that my friends would be entertained instead of bored when they looked at them. I had hundreds of feet, a little on each reel, which was "not so hot" and for which I always apologized. My new program meant a lot of work; it meant eliminating these shots, it meant titling many of my reels and it meant projecting and sorting every roll of film that I had. Oh, if only I could have seen into the future and had started five years sooner—started the day I had received my first rolls back from the developing station. I made a vow then and there that I would never again let my films accumulate for more than a month—and I never have.

I knew it was going to be a real undertaking, so I talked Mrs. Holden into helping me. Getting started was difficult. We had never edited and arranged pictures before so we didn't know what to do or how to go about it. But we did start and it wasn't long before we were in the job heart and soul.

First, we projected the films and made written lists of every scene on every reel. With a rubber band, we fastened on each reel a slip of paper on which was written the list of scenes in that roll. Notes were made as to good shots and bad, what scenes to discard and what ones to keep. As we projected these films, we noted the dates on the slips. Then we sorted the reels as to seasons and years and subdivided these into groups of personal, family picnics and party scenes, etc. Travel films were put into another group, and within this category the films made on each trip were grouped together in their proper order. Films of sporting events went into another group and other films, not easily classified, went into a miscellaneous group. At last, the films were all projected, classified and sorted. The job was only started but it was getting more and more interesting. Wonderful possibilities for titling, editing, assembling and rearranging were developing all the time. We found that we were continually planning an arrangement to make our films more interesting.

I purchased a titling outfit, a splicer, 400 foot reels and cans, a film rewind and a number of fifty foot reels on which to wind short, ten to fifty foot lengths until they would be needed.

After completing the titling, editing and assembling job, I had quite a library of 400 foot reels. On each can, we placed a strip of white adhesive tape on which we lettered the name of the subject and [Continued on page 82]

The clinic

FREDERICK G. BEACH, ACL

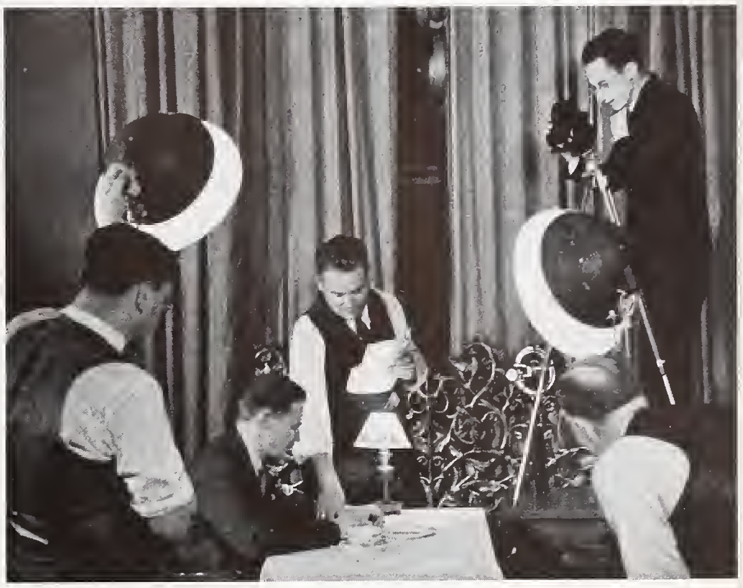
Camera angles ■ The average tripod will take care of most situations encountered by the movie maker, but there are times when greater height is needed, and tables or other articles of furniture must be called into play. The scene shown in the illustration required a high camera position, which was obtained by mounting the tripod on a table. In this setup, two flood lights furnish the overall illumination, while a small spot at the right below the camera gives the highlights that bring out the modeling. The table lamp is made to appear to give a natural light by means of a flood bulb. Such a bulb is necessary in order to overcome the other strong light; an ordinary sixty watt lamp would have little effect on the film.

Sound effects ■ Scoring sound effects by means of the dual turntable system calls for some knowledge of the nature of the original sounds represented in the picture if the results are to be realistic. Better no sound at all than one which is not quite suitable. For instance, a shot of a giant ocean liner sailing from her dock calls for a deep steamship whistle, not the shrill locomotive type. A shot of a single bell ringing in the church steeple cannot be used with a record of chimes. Hundreds of sounds and combinations can be obtained on disc records, and the League service departments will be glad to assist in locating any particular effects that a member may wish for his film. The consultants, when viewing pictures, will make suggestions as to sound effect records, if the member wishes. Suggestions for musical scoring cannot be attempted, because this is so largely a matter of personal taste.

Frame line ■ The black frame line, which separates one frame of film from another, is produced by the tiny portions of film that are not exposed when the strip is run through the camera. The frame line can be seen and checked on projectors which have a framing device. Simply turn the adjusting knob until the line is visible at either top or bottom. If the line varies in thickness and appears unsteady, the camera needs attention. If the line is constant in thickness but moves up and down, causing the picture to jump, the projector needs checking.

Projection lenses ■ Few movie makers realize the advantages of the longer focus projection lenses. In order to point out just how they may be used, it might be well to consider an example. Assume that we have a fairly large room, that a number of people comprise the audience and that a medium sized screen is the only one available, while, for various reasons, it is not desirable to place the projector anywhere but in the rear of the room. At this position, the image would more than fill the screen. The proper long focus projection lens would solve this problem, enabling the projector to be placed at a greater distance from the screen than normal, yet keeping the picture as small as if the machine were much closer. In other words, the longer the projection lens, the farther from the screen the machine can be placed to obtain a given screen size. Such a lens is especially valuable for auditorium work where the machine must be stationed at some distance from the screen. Many movie makers use a three inch lens for home screenings, as it enables them to place the projector in another room away from the audience. This is a decided advantage if music is used with the pictures.

Technical comment and timely topics for the amateur



Charles J. Carbonaro, ACL

Floods and a spot provide lighting for an angle shot

Fades ■ The most commonly useful method of making fades is to employ a fading glass. This is a strip which is graduated from clear at one end to opacity at the other. The fade is started by filming through the clear portion, and the glass is moved until the opaque end covers the lens. The glass should be held close to the lens so that all light will be shut out when the fade is completed. This method is applicable to any lens on any camera. There is another way of producing a fade that is easier to use, but the means of handling it is available in only one camera at the present time. The mechanism consists of a device to close the blades of the shutter while the camera is in motion, thereby shutting out all light. Various homemade devices, such as a fan shaped piece of cardboard swung in front of the lens, will give a partial fade effect.

Editing aids ■ A soft cloth bag, fastened to the end of the editing table and held open by a wooden framework, makes a handy container for short film strips. They can be clipped to the top of the framework with spring clothespins or may be hung on fine brads. The various clips can be numbered for convenience in keeping the sequences straight. Small bits of adhesive tape are useful in marking tentative cuts in the film while it is being edited and rewound. Clips marked with tape, however, should not be run through the projector, unless the colored cellulose tape is employed. A pane of opal glass, sunk flush with the top of the editing table and lighted from beneath, makes a very satisfactory viewing device, and its use in conjunction with a small magnifying glass enables the film to be examined readily.—*Sidney C. Hayward, ACL, and Stewart D. Brown.*

Color titles ■ I find that colored base positive film lends itself very well to making titles for a Kodachrome picture. A number of tints can be obtained at no increase in price over the regular [Continued on page 84]

Fractions

ANNE M. FILUT, ACL

How one school has dramatized them on substandard film

Wm. Spies

USUALLY, children find fractions difficult to master. However, when the subject is presented in a way that allows the children to visualize them, fractions will be easily comprehended. This visual method of teaching fractions was used with a homogeneous group of fifth grade children at the William T. Sherman School, Milwaukee, Wisconsin. The children were given an opportunity to manipulate various objects as whole units and then to divide them into various parts. When all their concepts relating to this subject were clear, many of the youngsters remarked, "Oh, fractions are easy!"

To capitalize the children's experience in this subject, they were approached with the question, "If you think fractions are easy, would you like to do something for boys and girls who find fractions difficult and very often impossible to understand?" Immediately, they wondered what it was that they could do and were open to suggestions. The majority of them admitted playing school at home and imitating their teacher. This was considered a good starting point for bringing a new breath into an old and necessary subject of the curriculum. It led to the suggestion, "If so many of you boys and girls play school and imitate your teacher, why not do it in earnest at school and give your teacher an opportunity to make a motion picture of you while you are doing so?"

"What, a motion picture—a real motion picture!" was the incredulous response.

This was such a new and startling suggestion that they could not fully comprehend it. After they were assured that it would be a real motion picture production, their enthusiasm had no bounds. The plans which ensued were invigorating and absorbing.

By a happy coincidence, the following day the Milwaukee Safety Commission showed our school a film, *Safety*. It was a picture of their own making, and it contained many striking scenes, good closeups and titles. After viewing the film, the class studied it critically. The scenes were discussed and the purposes for which they were intended were brought out. The striking closeups were noted and the forceful way in which they emphasized various points was mentioned. Finally, the titles of the film were evaluated in detail, because this film contained some that were typewritten, some in which personal correspondence was written in long hand and some which were made professionally with animated backgrounds. The advantages and disadvantages of each type were expressed by various members of the class.

To aid them in better understanding the production of a motion picture, the construction of an 8mm. cine camera was explained and demonstrated. This gave them an idea of what would constitute a scene in a movie and how long it should last on the screen. So that all the pupils could have the experience of being filmed, we dramatized the work in arithmetic for that day. This gave them many ideas for planning their work and it helped in dispersing the novelty of the mechanical operations of the camera.

Unanimously, they agreed that, if they were to approach the problem with the idea of playing school seriously, they would like to proceed with their work in the way it was presented to them. To facilitate their progress, they formed the following committees: scenario, titles, charts, equipment, lights, distance, exposure and supply custodians. Each pupil was assigned to a committee toward which he could contribute according to his adaptability and interest.

The work of the scenario committee consisted of reading over the scenarios submitted by various members of the class and deciding upon the most outstanding contributions. When their choice

[Continued on page 81]

Below, the students are shown producing a scene and preparing titles for their reel on teaching fractions, while, above, the class is examining the finished picture

Wm. Spies

Wm. Spies

Amateur clubs

JAMES W. MOORE, ACL

New York contest ■ The Metropolitan club cup, premier award offered by the Metropolitan Motion Picture Club in its annual members' film contest, has been given this season to Sidney Moritz, ACL, for his one reel picture, *Egyptian Travelog*. Beside winning this place as best film of the contest, Mr. Moritz's subject automatically placed first in the travel division; the other division prize winners were *Animal Kingdom*, by Annette C. Decker, ACL, best topical film; *Pinch Hitter*, by Charles J. Carbonaro, ACL, best photoplay. These three pictures will represent the New York club in the interclub competition between Eastern cine groups for the Raymond L. Ditmars cup. The judges in the members' film contest were Beth Brown, ACL, theatrical scenarist and MOVIE MAKERS author; Wilton Barrett, executive head of the National Board of Review of Motion Pictures; Herbert C. McKay, dean of the New York Institute of Photography. Peter J. Hughes served as contest chairman for the New York club.

Eight wins at L. A. ■ Officers for the new year were elected by the Los Angeles Cinema Club, meeting at its annual banquet gathering, as follows: Franklin B. Skeele, president; Dr. LeRoy H. Bailey, vicepresident; A. L. Gram, secretary treasurer. Following the election, the program was devoted to screening the prize winning films in the recently concluded grand prize contest for members' films, which climaxes the yearly activities of the Los Angeles group. *San Diego Exposition*, an 8mm. documentary record by Dr. Henry A. Linek, took first award, bringing the premier honor to this film width for the third successive year in the Los Angeles club's contests. The other place winners, in order, were: *Autumn Roads of the Pacific*, by Earle Memory; *Hook, Line and Slicker*, by Mr. Skeele; *Skipper*, by Steven Crosby; *Trailer Trip*, by Elton Walker, ACL; *Conscience*, by Claude W. A. Cadarette. Special award winners in the contest included *All in a Day*, by R. B. Stith, ACL; *Hopi Indians*, by Guy Nelli, ACL; *Animal Land*, by E. F. G. Chapman; *Here and There*, by W. C. Thomas; *Britain 1935*, by Major F. J. Rutland; *Was Darwin Right?*, by Dr. Bailey; *Whims and Cines*, by Harold Benner. The board of judges for this annual contest was composed of representatives from the several cine dealer stores and manufacturers that had cooperated with the club in furthering the contest. A series of topical competitions is already under way for the new year.

Torontonians talk ■ Recent meetings of the Toronto Amateur Movie Club, in Canada, have featured discussions by members of the club, as follows: First, *Adoption of 16mm. Photography to Modern Surgery*, by Dr. A. Willinsky, illustrated by his own 1200 foot film, *Prostatic Obstruction;* second, *Experiences with Kodachrome*, by Alan Moorhouse, ACL, illustrated with his *Village by the Sea* and *They Passed This Way*, documentary and dramatic pictures respectively. A feature of one of the late meetings was the presentation of *In The Beginning*, the distinguished Ten Best award winner by Fred C. Ells, ACL, of Yokohama, which was made available from the League's Club Film Library for its first club screening in the western hemisphere.

New life for Larchmont ■ Programs and activities of the Larchmont (N. Y.) Cinema Club are being revived with unusual success, according to the reports of Harry Rich Mooney, ACL, secretary treasurer of this veteran organization. *Making Christmas Movies* was the subject of a discussion by club member Peter Lindemann at a late meeting, which was illustrated by Mr. Lindemann with a screening of several of his own holiday pictures. Interior lighting arrangements and superspeed films were featured in his discussion. During the coming year, the Larchmont club will devote the first half hour of each meeting period to a clinical screening of members' films, which will then be followed by the formal program of speech and correlated demonstrations. The meetings are held on the first and third Tuesday of each month at the city's Municipal Building and commence at 8:15 P. M. Interested movie makers in Westchester County communities are invited to attend a meeting as guests of the club.

San Francisco selects ■ Members of the Cinema Club of San Francisco have elected and announced a new board of officers for the coming year, as follows: Dr. A. J. Corbett, president; Gordon Michie, vicepresident; Harry Rief, secretary; Roland Calder, treasurer. Serving with them on the board of di-

[Continued on page 79]

Latest news of group activities and photoplays

Cincinnati Cine Club

A Cincinnati Cine Club movie making unit in full force

Managing the cast

J. F. HOLLYWOOD, ACL

One movie amateur tells how he dealt with this problem

WHEN I got the urge to make the little movie which afterward became *Opera Night*, I had three objectives in mind—first, to make a movie record of some of the growing members of the family; second, to see what I could do in the way of telling a little story with my 8mm. camera; third, to have a try at the use of flood bulbs.

After I decided to make a picture, the next step was to plan what kind of a picture to do. In the case of the theatrical producer, I imagine that the picture is built around the idea or story. The producer gives the word, the studio springs to life and the result is beautiful sets, capable actors, experienced cameramen, electricians, etc. With the lone movie maker, however, the procedure, of necessity, must be reversed. Instead of building around the idea, the amateur does well to seek a natural set, already built, and then to plan the picture around that set and players. At least, that is the procedure which I followed.

What more natural set is there than your own home? Looking around for ideas, I discovered the radio. Much of our family life centers around it. What better place for a story to develop? The next thing that I noticed was one of Marion's Christmas gifts—a book, *The Story of the Opera.* Now this looked interesting! I leafed it through. *Faust!* Well, there is something! Can't you see the flashing Mephistopheles advancing with menacing steps? It looked like the seed of a little story.

Occasional mental coaxing finally brought the story into being. One morning, walking with Marion and Joseph (the young lady and boy of *Opera Night*), I outlined the story and found them interested and eager to take part in it. Then we discussed the rôle of Mephistopheles. Whom could we get? They both decided that Dick would be ideal. I thought so too, but Dick had never faced a camera nor done a bit of play acting in his life. But neither had any of the others. I reflected, however, he does like to fool and play with youngsters, and anyhow any willing, intelligent person can act—at least, that is my theory. Well, Dick agreed and so did Patricia and Rita (the two little girls of the picture, Dick's daughter and niece). So, at this point, we found ourselves with a set, a story and a cast.

The next point was to get Mother's permission to use the "set" and to decide on a convenient time to work. A battery of three double lighting units, three or four single lights and reflectors, with their cables, switches, etc., cluttering floors and furniture are no joke in any lady's sitting room. But Mother is understanding and was interested in the making of the little movie, so we had her permission and her active cooperation. She was part of the production, too, but one would have to use his imagination to see her. She sat, controlling the light switches, but out of camera range.

Did you ever appear suddenly alone on a front stoop, dressed as Mephistopheles?

Now, we had everything but the film and the working scenario. So, we got the film and then went to work on the scenario. It finally emerged in working form on a bunch of scrap paper. But every scene described the action and the kind of shot.

Everybody agreed that Saturday evening was an ideal time to begin. So that evening, we all went over the story except Dick, who would be available for one evening only. I also took a few test shots and, after an hour or so, called it off, planning to begin serious work the next Saturday evening. My cast enjoyed it, especially the younger members. They were having a Saturday night out like the grownups. On the way home, we stopped for the evening's pay check; they collected chocolate marshmallow sundaes with plenty of pecans. They never missed the pay window on any succeeding Saturday night.

The test shots were not so hot! They never are, for that matter. (I used to think that golf was the only aggravating pastime.) This time, I had hoped for nothing short of a Von Sternberg result. But . . . Yes, it's always "but" when the film comes back from the processing station. However, we saw a way to remedy our faults.

All the actors were on hand the following Saturday night. We set up our lights and planned to take first all scenes made looking from the door, next all those made from the back of the room and then all those made from the side. This avoided constantly shifting camera, tripods, lights, etc., which is a man's job, as most movie makers know. Everything was ready. The exposure meter helped and so did the lighting tables. We set the two D's. Then we seated our cast in place and told them once or twice what we wanted them to do. Then calling, "Lights! Ready!", I pushed down the button and we were off! So it went, scene after scene, with little or no rehearsing. The director told them and sometimes showed them what to do, and they did it.

In our innocence and inexperience, we estimated that about two Saturday nights would be required. It took six or seven. Of course, the young people didn't mind it. It was a lark for them, although once or twice they did get a little sleepy. But it was different with the grownups. Mother was quite sure that it would never end. So she had to invite some of her friends in to keep her company, which helped a whole lot. After all, looking at a complete movie is one thing, but trying to piece together a jigsaw picture, some of the pieces of which are missing, is a crazy, bewildering experience unless, of course, you ride the hobby yourself.

Finally, everything was finished but the Mephistopheles part. Dick was to be on hand Saturday night. We had arranged for the costume and makeup and, that night, Marion helped to make him up. Dick was finally ready. He felt a little sheepish about it all. Who wouldn't, if he had

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Chromatic aberration

HIRAM PERCY MAXIM, ACL

League President had it with first color experiences

WE amateur movie makers are all subject to the same mental processes. Running true to form, when vacation time arrived last summer, I decided upon a motor tour to Gaspé with my better half, and during this trip I planned to shoot a color film that would stun the world.

As I deliberated over the various new expedients that I proposed to adopt, the thought that I had not had much experience with Kodachrome kept coming to mind. I believed I knew panchromatic film, and I had a certain confidence in my abilities with Kodacolor; but, in the cold gray light of the record, I was forced to face the fact that what I did not know about Kodachrome would fill a large book.

The doubtful point was exposure. There should not be black shadows containing no detail, the lighting should be flat and there must be a minimum of long distance shots. Colorful closeups and semi closeups would do the world stunning.

My cinematic crony, who has made a whole library of films in various parts of the world and who has done quite a bit with Kodachrome, took me aside and preached the gospel of exposure meters. He is an addict. His faith in them is nothing short of sublime. Sometimes I suspect that he uses them in selecting his diet. But I felt that the exposure meter would not meet my requirements.

A long, sad and expensive experience with panchromatic film has given me a certain quality of judgment which goes awry but infrequently. So I decided to trust to this judgment on exposures. However, I would hedge. I would split the risk and use half panchromatic and half Kodachrome.

With a fierce resolution to resist the temptation to shoot scenes in which there was no motion, and with an iron clad determination to make no long distance shots and to use a tripod, no matter at what inconvenience, we set out. Having put the car on the boat at Boston for Yarmouth, Nova Scotia, our plan was to drive through Nova Scotia, through the Province of New Brunswick, to cross the Restigouche River at Campbellton and proceed along the south shore of the Gaspé peninsula as far as Percé.

All went well through Nova Scotia and New Brunswick, a few panchromatic shots only being made. When we reached the Gaspé peninsula, it was evident that the time to use color had come. The weather had cleared, the sky had just the right kind of puffy white clouds in it and the sea was as blue as the Mediterranean. I blush to record what happened.

A perfectly stunning view disclosed itself as we rounded a curve. I decided to shoot it. It was not convenient to get at the tripod. I excused myself by believing that I could lean against the car to steady the camera. The scene was not exactly a closeup; in fact it was not even a semi closeup. To be perfectly honest, it was a Simon pure long distance shot calling for a haze filter. The haze filter was in my suit case, which was locked up in the trunk at the back of the car. And Mrs. Maxim kept emphasizing the fact that we already were an hour late. To my everlasting shame, my lofty resolutions were cast to the winds. I degenerated to the level of the snapshot shooter.

We completed our tour, enjoying it hugely, and then went through the torture of waiting for the films to come back after processing. When the familiar little package finally arrived, I tore into it as passionately as only an amateur cinematographer can. At the window, I scanned by hand the panchromatic first. It was all I could ask. Then with great anticipations of glorious color, I opened the Kodachrome. The first glance dealt a dreadful shock. The film was opaque! Yards and yards of it were about as colorful as a strip of tar paper. It was impossible, scanning it by hand before a window, to see any suggestion of an image. With a sickening feeling, I realized that I had grossly underexposed my vacation film that was to stun a waiting world. Every amateur knows this awful sensation.

That evening, with a heavy heart, I spliced the whole business together and projected it. My good wife insisted upon being present during the doleful affair. I confess to moving the screen closer by some five or six feet and shoving the rheostat on the projector up to the limit of current that the lamp would take. If the lamp burned out, it would have to burn out. My reputation was at stake, and what was the price of a lamp beside my cinematic reputation!

As that horrible film flowed past, I delivered myself of the usual threadbare explanations and excuses that we all know so well. By the time the last reel had wound its dreadful length up, I had reached a point where I seriously contemplated rat poison.

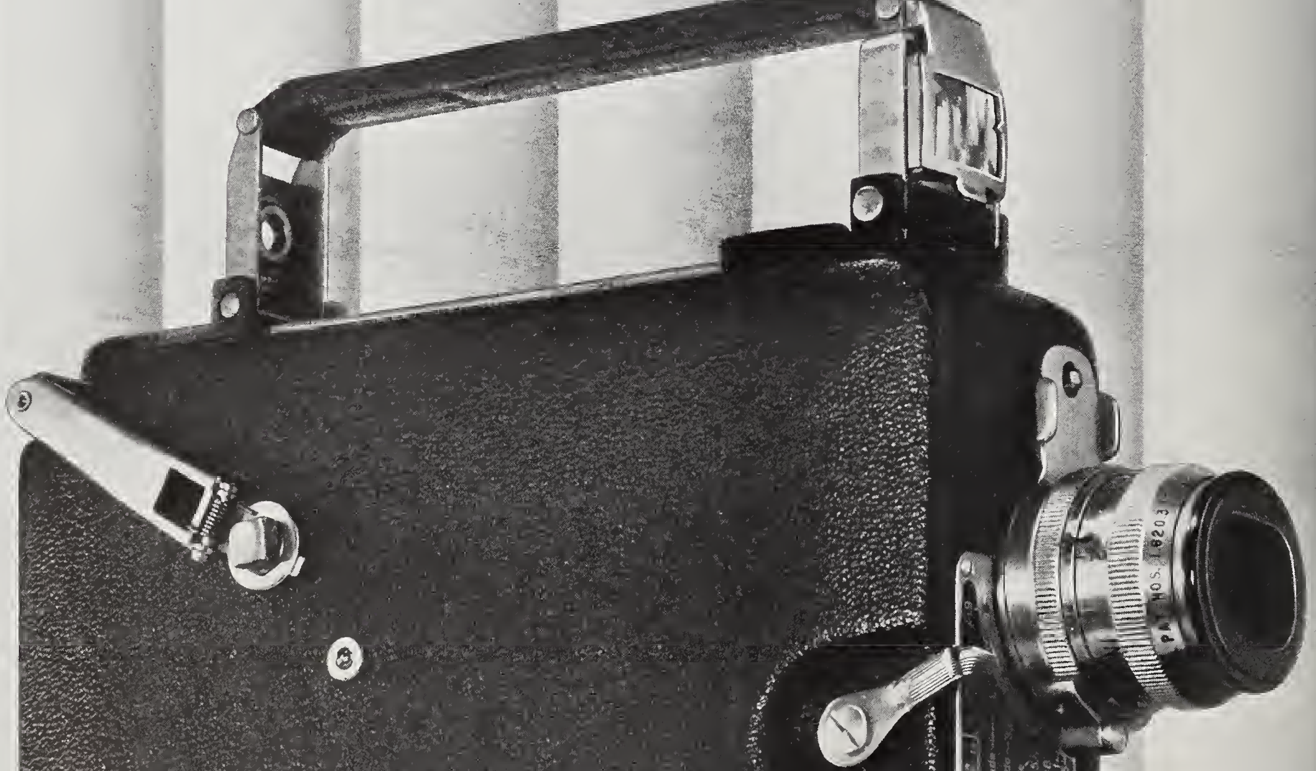
The next few days were given over to painful meditation. Most of the shots on panchromatic film were beautiful, but I wanted a good reel of color too. Some of the color shots were positively ravishing. They demonstrated what easily could have been. There was a lot of footage that was not, however. In due time, the poignancy of the disappointment wore off, and I determined to see what some ruthless slaughtering would do. There would have to be a lot of it before I dared show the film to my cinematic crony. W.R.C.C.

One evening when the family were all out, and I could use language befitting the occasion, I screened the miserable films again, making notes of what to cut out and what to rearrange. It required hours of real toil. The result was a waste basket full of Kodachrome film. When the result was screened, it was better, but far from acceptable. More quiet evenings alone eliminated more shots. Finally, there came an evening when I had a film which a sufficiently weak minded person might be persuaded was worth viewing. I had slaved for hours on it. In business, I would charge a client $1000 for the time I spent on that film.

With ordinary projection, it is just barely presentable. With a 10,000 watt lamp instead of a 500 watt machine, and with a stream of liquid air flowing over the film and the projector, and the fire department standing by outside, I believe I could throw some perfectly beautiful color pictures that would fill the usual large size parlor screen. Unfortunately, there is no such lamp. I suspect that the answer to my trouble is to use larger diaphragm openings when shooting color. In the meantime, I have yet to stun the world.

EASTMAN PRESENTS

MAGAZINE CINÉ-KODAK



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Effortless loading is only one of the many new features of this pocket-size 16 mm. movie camera.

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Suppose you want to switch film—make a few color movies with the wonderful new Kodachrome Film, or indoor movies with Super Sensitive "Pan" Film. You can do it in a jiffy. The magazine protects the film. Footage meter on each magazine shows how much film you've used.

Three speeds—normal, half speed, and slow motion. Four interchangeable telephoto lenses. Under your finger, as you shoot, a gentle "pulse" button keeps you posted on scene length while your eye remains at the finder. In short, it combines the greatest number of usable features in the smallest possible space.

$125 with Kodak Anastigmat f.1.9 lens; $137.50 including combination carrying case. Eastman Kodak Company, Rochester, N. Y.

Your dealer will gladly show you this remarkable new movie camera, give you a copy of an interesting booklet which describes and illustrates its many bother-banishing advantages. See it—try it—today.

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Loads in 3 seconds
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HOME MOVIE CAMERA

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Effortless loading is only one of the many new features of this pocket-size 16 mm. movie camera.

YOU can load it with your eyes shut. No threading—slip the magazine into the camera and close the cover. Then shoot.

Suppose you want to switch film—make a few color movies with the wonderful new Kodachrome Film, or indoor movies with Super Sensitive "Pan" Film. You can do it in a jiffy. The magazine protects the film. Footage meter on each magazine shows how much film you've used.

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EASTMAN'S NEWEST AND FINEST HOME MOVIE CAMERA

News of the industry

RUSSELL C. HOLSLAG, ACL

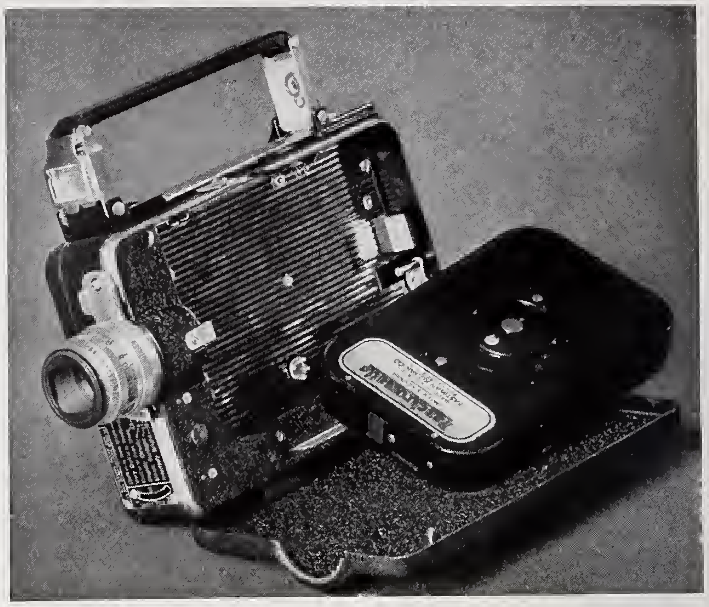
Ampro brightens ■ By means of the use of special condensers of new design, characterized as "dual-convex," as well as by means of an improved shutter design, a light increase of ninety three percent is claimed, by the Ampro Corporation, 2839 North Western Avenue, Chicago, for all Ampro projectors of the "J" and "K" series. It is said that all projectors in these models are now capable of producing larger screen images without an increase in lamp wattage. All new projectors in this series will carry this improvement without increase in price, and former models may be converted at a low cost. It also is announced that the screen illumination of the Ampro Model A, with 400 watt lamp, can now be increased fifty three percent by the incorporation of certain of the changes already mentioned. All Ampro silent, 16mm. projectors now have been approved by the Underwriters' Laboratories.

Pola-screen ■ A new type of filter or screen, which transmits light polarized in one plane, has been developed by the Eastman Kodak Company, Rochester, N. Y. Many of our readers are not familiar with the phenomenon of polarized light, because its use has not often been mentioned in connection with cine photography. Light rays normally proceed in all directions from the source but, under some conditions, may become polarized, which means that all directions of vibration but one have been suppressed. Such a condition may occur in light reflected from an oblique, polished surface, or in light coming from a clear, blue sky. The Pola-screen is made of a transparent sheet of polarizing material which may be held before the lens like an ordinary filter. When this screen is rotated, a certain position is reached at which the material will cancel undesired polarized light reaching it. By rotating the screen and observing the result, glare and reflection coming from the surface of water, glass, metal or other surfaces can be subdued or eliminated. When photographing subjects against a clear, blue sky, the Pola-screen is said to give a remarkable control between the contrast of the sky and subject. Thus, an interesting new aid is given the still or cine photographer.

Filmo 8 lenses ■ In response to the demand for a wider range of lenses in Straight and Double 8mm. Filmo cameras, the manufacturers, Bell & Howell Company, 1801 Larchmont Avenue, Chicago, announce a new one inch, *f*/2.7 Taylor Hobson Cooke lens, in focusing mount, and also a fast, *f*/1.5 lens of the same focal length and make. In addition, there is available the new Cooke "semi telephoto" lens, the one and one half inch, *f*/3.5, equivalent in magnifying power on the Eight to a three inch lens on a 16mm. camera. View finder masks for the Filmo 8, which provide the correct field of view with these lenses, will be supplied. If lenses of longer focal lengths are desired, 16mm. camera lenses of the same make may be adapted to the Filmo Straight or Double 8.

Centering titles ■ The Optiax is a compact little instrument which enables the 16mm. camera user to center, with certainty in the picture field, titles or other subjects which may be placed at any distance from the camera. This is accomplished by removing the taking lens and screwing the Optiax tube into the lens socket. The lens is then placed at the front of this tube, which is threaded to receive it. By means of a ground glass screen, a total reflecting prism and magnifier, the lens image may be observed. With an accurate view of the field, the camera can be moved for correct centering. This having been done, the device is removed and the lens replaced in its taking position. The maker is Arthur Wolff, ACL, 159 North State Street, Chicago. Mr. Wolff has also developed a frame counter for Victor cameras and a camera inverter for trick pictures.

Answers the query "What's new?" for amateur and dealer



New Magazine Cine-Kodak has a fifty foot film charger

New Photoscop ■ An interesting, newly designed model of a photocell exposure meter is announced this month in the new Photoscop. The outstanding features of the new instrument are its small size and its ingenious arrangement of inclined photocell and mirror, forming two plane surfaces which meet at an angle at the front part of the instrument. This arrangement limits the sector of light measurement approximately to a forty five degree angle when the instrument is held in its proper reading position, which is horizontal. In so reading the meter, the region directly in front and just below the horizon is favored, thus suppressing some of the excess top light influence, which often upsets the light balance in ordinary meter reading. The meter is universal, in that it will read directly, both for "stills" and movies. An ingenious, movable scale enables the instrument to be set in advance for whatever type of emulsion is being used or for varying cine camera speeds. The cell has a wide range of sensitivity and the needle reads directly upon a large, well arranged scale. The time scale of the new Photoscop includes the range between 30 and 1/1000 sec.; film speed settings range from 14 to 29 degrees Scheiner and movie camera speeds from eight to ninety six frames a second. Thus it will be seen that the instrument covers the entire normal gamut of photographic possibilities. The new meter is said to embody unusually high standards of craftsmanship and many new electrical and mechanical features. Its dimensions are two and seven eighths inches by three inches by one and three eighths inches. An ever ready leather case is included in the purchase price. Full service facilities are available at the New York headquarters of the importers, Photo Utilities, Inc., 152 West 42nd Street, New York. The new Photoscop is made exclusively for this firm, which, it is stated, has patents issued and pending on the instrument and also has world distribution rights. It is stated that the new meter has been developed to meet the widest average needs of the cine and still photographer.

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Things people ask us

[Continued from page 65]

chine can, in this machine age of ours. What we do is to move a strip of movie film past a lens, rapidly enough to let a very clever mechanism halt it in flight sixteen times a second, register a picture on it at each halt and then move it on. This mechanism keeps light away from the film as it jumps from one taking position to another and lets the light reach it whenever the film is not jumping. The film travels past the lens in this intermittent motion, and what gets on it, in the final windup, is a series of still pictures, each one sharp and clear, if the motion photographed is not too rapid and if the photographer knew his business. These individual pictures are called frames, because each is the same size, which is determined by the frame in the camera, just in front of the moving film. Then they are thrown on the screen, sixteen of them each second —unless the man running the projector slows it down or speeds it up. Of course, the projector has an intermittent motion. just as the camera has, which keeps light away from the film as it moves and lets light reach it during each of the sixteen times a second in which it is motionless. I suppose it sounds funny, but the fact is that you don't *take* or *make* movies at all, because they don't move until you project them, and they wouldn't move then if the audience did not provide the absolutely essential fact of their eyes being slower than the machine. Nothing but deception, all round.

The photographic part of still pictures seems to be pretty much like movies. That is why you movie makers talk about such things as exposure, focus and stops, fast film, fast lenses and so forth, just like other photographers. How do these tie in with what you have told me already?

Exposure is just a Latin word used to say the same thing as letting light reach the emulsion. Focusing means getting a picture that will be sharp and not fuzzy. Stops tell you how much light reaches the emulsion. Fast film means an emulsion on which light will act in less time than on a slower film, or that will take a picture with less light than a slower film needs. A fast lens does the same thing as fast film, as far as results are concerned.

You have probably heard people talk of *f*/1.9, *f*/3.5 and so on, and it has sounded impressively technical. These are the names of the stops. The smaller the number, the larger the lens opening and the more light is let in. The decimal fractions have no great significance to the person who uses them, and some stops, like *f*/8 and *f*/11, are whole numbers. With lenses in general use, the

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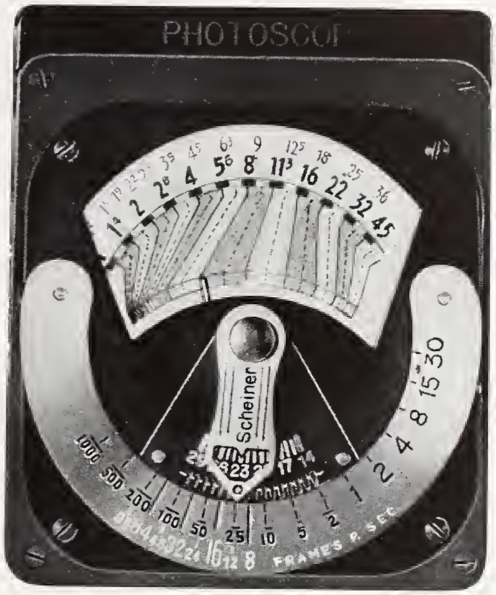
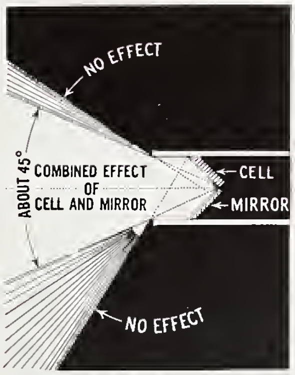


THE NEW PHOTOSCOP
(Actual Size)



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FREE:—"General Electric's Handy Pocket Guide for Home Movie Makers." Gives numbers of lamps and distances from subjects when you use supersensitive, regular pan 8mm. or kodachrome. Write General Electric Co., Dept. 166-F, Nela Park, Cleveland, O.

Ask your dealer about the $2500 prize contest for night pictures. Your stills might win a prize.

GENERAL ELECTRIC MAZDA PHOTO LAMPS

stop *f*/1.4 is the largest opening of the "fastest lens." Lenses are generally named from their largest opening. Most movie lenses used by personal filmers have *f*/16 as their smallest opening, although some have *f*/22. The mechanics of operating these stops is by setting a scale on the side of the lens tube. Inside the tube is a very neat arrangement of flat metal leaves, called a diaphragm, capable of producing circular openings of various diameters. This diaphragm opens and closes with much the same effect as the eyelids in the human body, or, more exactly, like the iris of the eye. Set at *f*/22, the leaves are almost entirely shut, leaving just a point for light to reach the lens. When an *f*/1.4 lens is set at *f*/1.4 stop, practically the entire glass lens area is cleared to let light pass. Look into a lens tube, sometime, and see this mechanism, because it works very beautifully. There are also other types of diaphragms.

Lenses, like people, have second names, and these second names come from another division of these photographic conveniences, which has to do with the size of any particular object in the final picture. These second names are based on the focal length and are expressed in millimeters or inches. The fifteen millimeter lens is at one end of the amateur movie classification of lenses, by focal lengths, and the six inch lens is generally at the other. Using the first of these, any object in the final picture will be much smaller than it will be, at the same distance from the camera, if the second is used. Lenses of long focal length give the same effect as a pair of binoculars, or field glasses. What actually happens is that, with the six inch lens, a small object at a distance—according to the way the eye sees the view—may be made to fill practically the whole picture area. Therefore, it will fill practically the entire opening of the projector and, hence, the entire screen. With the fifteen millimeter lens, on the contrary, more of the view is included in the picture area, with the result that you cover more territory but get smaller objects in the final picture.

Some lenses, in addition to their first and second names, have also what might be compared to a professional title, because they have a special capacity of being focused. If, therefore, you hear of a focusing, one inch, *f*/1.4 lens, you may be sure that you are dealing with an object of considerable photographic standing. This special capacity enables the filmer to move the lens forward or backward in its tube, in order to get sharp pictures without changing his position as the subjects move. Lenses without this power of being focused for various distances are called fixed focus, or "universal," lenses. They are conveniences for the less expert movie maker, because he does not have to make a second adjustment for focus, after he has set the lens exposure stop. In using them, you have to see that your subjects do not get too close to the camera or, if you cannot control them, you must move the camera; with focusing lenses, setting the focusing scale on the lens tube, according to measured distances from the camera, will do the trick. Of course, adjustment can be made much more delicately and accurately with focusing lenses, and they are preferred, for this reason, by careful cameramen. Whether one kind or another is used, if the picture is not sharp, or "in focus," as we call it, the filmer has not used his lens to good advantage and the result on the screen will be blurred and unpleasant.

Systematized editing

[Continued from page 64]

inches from center to center, with one card touching the next in the same row. Then I start to cut the film. I place number one reel on the left spindle and feed it through the viewer. The film is pulled through the viewer with both hands (using gloves if necessary) and is allowed to fall on a clean cloth on the floor, or into a clean basket. The film is cut at the end of the scene, or group of scenes, in accordance with the plan; then it is wound around the four fingers of the left hand. A paper clip placed over the last frame will hold the roll together. If the scene is too long to handle in this way, then it is wound on a 100 foot reel on the rewind spindle at the right. When the film clip is coiled up, either by hand or on a reel, I place over it the proper number card and cross off that number on the list. I continue doing this until I come to scene number one, which can be spliced to a leader and wound directly on a large reel. Then, while the cement is setting (about fifteen seconds are required), I continue with editing until I find scene number two. This is then spliced on the large reel. After I have done this, I pick up the card numbered 2, so that I will know that this has been spliced. By this method, I save the time that otherwise would be spent waiting for the cement to set and, in addition, I know exactly where I am at any stage of the process. If one is interrupted in the work, he can clip the numbered cards to the films and drop them in a box.

After the splicing is finished, I take up the question of titles. It is confusing to work on titles before this stage unless they have been a part of a scenario which has been followed carefully. To write the titles, I set up the projector and typewriter as before and inspect the edited film. I note the places where titles seem to be needed and immediately write, without regard for the final word-

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ing, some idea for the desired title. I also note any slight changes in the order of the scenes that would improve the final effect. These corrections are made when the titles are inserted. I carry the list of title suggestions with me and, when I have a few moments during the day, I cast the wording in final form.

To insert the titles in the spliced film, I pass the roll of titles through the viewer and notch each title at the place at which it is to be cut. Having rewound this, I place in the viewer the film to which the titles are to be added. I cut where each title has to be placed and then splice it in. While the cement is setting, I look over the list of scenes to find the location of the next title.

Amateur clubs

[Continued from page 71]

rectors are C. D. Hudson, D. L. Redfield and J. Oliver Tucker, ACL, retiring club president. Recent programs of this active group have featured discussions of reversal film and its processing, by William A. Palmer, ACL, title making, by K. G. Stephens, ACL, and the use of color filters, by John L. Corbett, ACL. Mr. Corbett and Mr. Stephens together were winners of the San Francisco club's recent contest for films judged solely on title excellence. Among the pictures which have been presented on club programs of late are *The High Sierras*, a Kodachrome scenic, by Mr. Corbett; *In the South Seas*, by Mrs. F. W. Lucas; *A Travelog*, by Alan Field; *Strands of Steel*, presented by J. Best of the Columbia Steel Company. The latter picture, which tells a story of the construction of San Francisco's Bay bridge, was photographed by Peter Stackpole and set to post recorded sound by Mr. Palmer.

Detroit invites ■ Movie makers in Detroit and its metropolitan area are invited by the officers of the Detroit Society of Cinematographers, ACL, to attend a gala guest night meeting of the group to be held on the twenty fourth of this month, at 7:30 P.M., in the Highland Park Y.M.C.A.. at 13220 Woodward Avenue, Detroit. Successor to the Detroit Movie Club, the society has recently been reorganized and is putting on a determined campaign to build up a group truly representative of the entire Detroit movie making fraternity. Included on the guest night program will be a question and answer period, a screening of members' films from the recently concluded Christmas filming contest, a discussion by Werner Gubitz on *Amateur Photoplay Making with Limited Equipment*, and the presentation of *Telemark* and *Not One Word*, from the Club Library of the League. Each of these films has been a Ten Best winner.

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Closeups—What filmers are doing

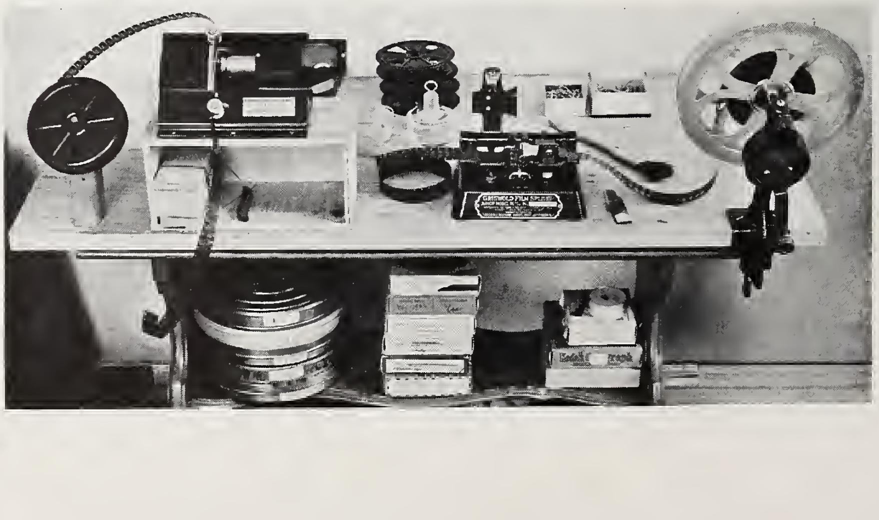
In his article, *Managing the cast*, which appears in this number, J. F. Hollywood, ACL, tells pretty much all about how he came to make *Opera Night*, as nice a one reel, 8mm. film of the family as one could hope to see. We've been meaning to speak about this film as one of those pictures which just missed mention in the Ten Best. It was not included in that category largely because of the surplus footage it contains. This flaw is something which Mr. Hollywood himself recognized, as he admits in his discussion, but he just didn't have the heart to remedy it. However, the film still had lots of good points—a simple idea smoothly developed, beautiful photography and good sequencing.

Kenneth B. Forbes, ACL, of Claremont, Calif., is another of the many movie makers interested in trains and train filming, as evidenced by *Toilers of the Rails*, a one reel, 16mm. tribute to the beauty and fascination of his subject, which required more than a year in the making. In it he introduces one to the giant caravans of steel, which today follow the old trails into the Far West, giving particular emphasis to the activities of maintenance crews at division points and to the double heading of engines over the mountain grades.

Wives, it has seemed to us, have never been given proper public credit for their parts in the successes of their movie making husbands. Now, however, Mr. Hollywood, mentioned above, has something to say on this score, and J. F. Holden comes right out in this number with a picture which pretty well indicates who does the work in his family. You may recall that Mrs. Bollinger officially shares the credit with Edward A. Bollinger, ACL, for their Ten Best work in *Peggy's Cove* and *Ultima Thule*, but you didn't know that, out in Yokohama, Mrs. Ells worked from meter to rewind with Fred C. Ells, ACL, the producer of *In The Beginning*. Now, John Baketel, ACL, chimes in with what is the most glowing tribute to date: "If I were to write a book on editing," confesses Mr. Baketel, after wading through some 1200 feet of film in twenty four hours, "the first and most necessary piece of equipment recommended would be a willing and interested wife. . . . Of course, a splicer is necessary, as are various other implements, but only after the wife. I thought I could throw away film, but *she* has me stopped in the first round."

Full fight scenes on 8mm. are what interest William Hermann, ACL, ever since his camera jammed on the day he attended the *corrida* in Mexico City, last June. He was down there at the Rotary convention, but hasn't been able to locate any black and white footage of bull fighting among his friends in that organization, so he now turns to his fellow members in the League. Anybody having footage which he is willing to have duped (or reduced from 16mm.) for Mr. Hermann may get in touch with him in care of the League's office.

It was still a little early to tell, when they walked into the League offices from Peoria, Ill., on their way to Vienna, Austria, but it is our bet that Dr. Fred Stuttle, ACL, and Mrs. Stuttle are going to be another crack movie making couple. The trouble then was that they were really on their honeymoon, going abroad for six months' research study by the doctor, and (our hunch) considerable filming by the missus. They sailed the day after we talked with them, but still managed to leave behind a pretty solid token of their devotion to the cause. It seems that they ran into a "cop" down at the pier, who turned out to be a movie maker but *not* a member of the League. Furiously, for the last half hour before sailing, Dr. and Mrs. Stuttle gave him the ACL talk—and the next day he stopped in to take the pledge.



The editing table used by Edwin Schwarz, ACL, author of "Systematized editing"

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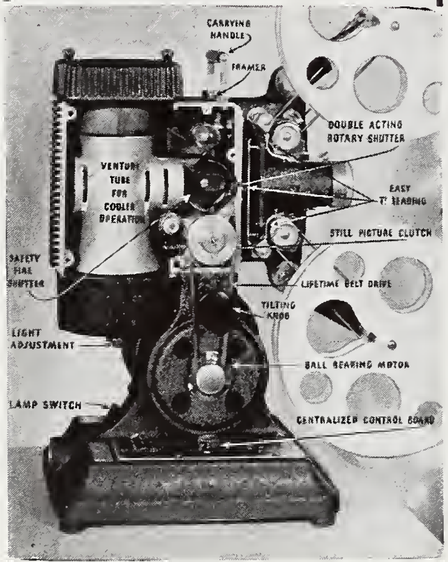

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Fractions

[Continued from page 70]

was made, they held, with the authors whose selections were chosen, conferences to decide definitely which scenes would be desirable and which could be eliminated before they submitted the scenario for final acceptance to the class. This work required a good deal of careful English composition, both oral and written. The children decided that, wherever necessary, the pictures must be preceded by some explanation to make them more interesting. This led them to the idea of using titles.

When the scenario for the first unit of work was unanimously accepted, the committee on titles prepared samples of various titles which they submitted to the class for approval. In order to have some uniformity in the project, they suggested that the titles expressing questions be carried out by means of lettering on glass with some movable background, while the answers to these questions be given by white letters on black cardboard. Then, of course, there would be some statements which they could not originate without the aid of their teacher. They decided that the teacher could develop these as she pleased. This idea was accepted by all, and the members of the committee submitted samples of some backgrounds which they had prepared. Now the specific titles, which were required for their first unit of the film, were prepared for filming. This work gave the pupils sufficient practice in balancing the lines, properly spacing the letters and in design and art in general.

The charts, which were necessary throughout the picture, were made by the whole class. This gave each child a strong feeling of personal interest in the whole project. Each child developed a different unit and had to work at his assignment until it gained the approval of the committee on charts. Incidentally, the committee's standards and requirements were far more rigid than their teacher had expected.

It was necessary for the equipment committee to become acquainted with placing the camera and tripod in the proper position for taking pictures. The lighting committee consisted of three boys who arranged our lighting units whenever we planned to take pictures and put them away when the work was completed. They also operated the switches while the filming was in progress. Two pupils measured the proper distance to help us secure sharp focus, while two others learned the intricacies of reading the exposure meter. The supply custodian was always on hand with the necessary supplies. The whole setup required a little practice so that we could attain smooth functioning and, when this was accomplished,

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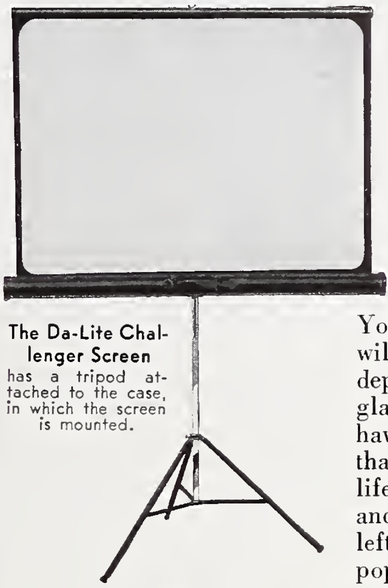

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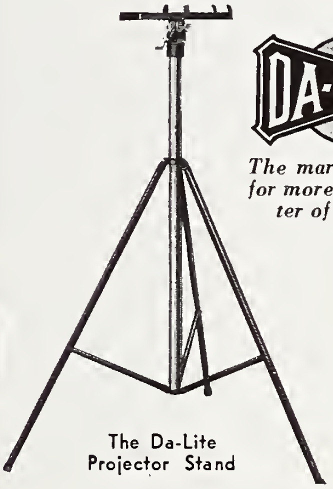

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we were ready to begin the production of the picture.

The author, whose scenario was chosen for one unit of work, had the privilege of choosing the actors for the scenes in that unit. It was also his duty to see that the necessary rehearsals were made before the actual filming. This work was done so diligently that we encountered no disappointments.

Practically all the scenes in the entire picture had to be taken either before or after the regular school hours, in order not to have this work interfere with our regular class program. Ten lessons in teaching fractions were developed in this manner. The preparation, consisting of writing the scenario, making all the necessary charts, scenery and titles, consumed more than half of the semester, and filming all the scenes required a month and a half.

The time spent in developing this project was well utilized because, out of this activity, there gradually evolved an entirely new system of teaching fractions. This the children justly call "Creative Work in Fractions" because, step by step, they presented the subject in such a way that they were ultimately eager to create their own original examples in fractions. The use that they made of arithmetic while producing this piece of work was in itself gratifying, in that it included size and proportion as elements in the child's mental image. They, themselves, had to build up a consciousness of number sense by using various units of measure in obtaining sharp focus and in making charts and titles.

The project developed in this group various original ideas, healthful attitudes toward the work and ideal habits of cooperation. These qualities were greatly encouraged through the personal responsibility which was placed upon each child. It made each pupil eager to report with accuracy on his assignment.

It correlated well with almost every subject in our curriculum. In art, this work stimulated pupils' interest in creating original designs for title backgrounds and in drawing the various charts. They had need for good English composition. The work they did in deciding what to write, and in organizing it in proper form, did more in forming habits of using good English than studying English composition which is not motivated. They were critical in their choice of words and selected only those which best suited their purpose. All this encouraged them to read books on photography, movie making, lighting, art and title making. This, in turn, unfolded a new field of interest to several boys and girls, which may serve to awaken latent abilities. The children were eager to spell their words correctly, for, unless they knew how to spell, they could not have their scenarios accepted. Practice in writing was afforded by writing the scenarios and rewriting them after all the corrections were made. They endeavored to meet accurately the rigid requirements of writing in the grade.

At the completion of this project, the children were asked if they thought the outcome of their work were successful and if the lessons in fractions fulfilled the purpose for which they were constructed. They all felt proud of the result of their work and began to think of ways and means of using the film lessons. One of the pupils wondered if the children in Matanuska Colony, Alaska, would enjoy learning fractions by using their film. Another wondered if the children at Ford's Boa Vista colony in South America would be benefited by it. They resolved to try an experiment if it would be financially possible to get the films duplicated. This suggestion helped to correlate the undertaking with geography. History was also woven into the project. The children were asked if they thought that there were any other boys or girls anywhere who had developed a teaching film similar to the one we produced. They were not certain, but hoped that they could have the distinction of being the first class to produce anything so helpful. Some endeavored to look through references on motion pictures but could find no previous record of similar activity. (This is the first film of its type of which there is record—Editor.) The most gratifying outcome of the whole project was the unanimous ejaculations of regret that the project was completed. This more than anything else described the complete success of the whole undertaking and the intense interest in it from the beginning to the very end.

The eight millimeter film is sufficiently large for an ordinary size classroom and is ideal for individual instruction, which is superior to any other method of teaching.

When they come back

[Continued from page 68]

the number which we had assigned to it. A small loose leaf note book was used for an index and the name of the subject with the reel number was entered alphabetically in this book. Using this book, it was only necessary to look under the "N's" to find the reel number of the Niagara Falls trip, etc.

Now what was I going to do with all these 400 foot humidor cans of film? We had just had new bookcases built on each side of the fireplace, so the old bookcase was reconditioned and moved into the recreation room in the basement. The reels were placed in it on end, side by side, the reel number showing on the outer edge of the cover of each can.

That was the start of my library. It required about two months' time that winter, working two to three evenings a week, to complete an accumulation of five years of movie making. Since then, I have been able to keep all my films filed and up to date by devoting one to two evenings a month to the work. It's easy now to keep up the file, for Mrs. Holden enjoyed the first big job so much that she always insists upon having a share of the titling and editing work.

If every newcomer to the field of home movies would start immediately to edit and file his films, the job would be easy but, when you wait five years, it is difficult to get started. I do believe that every movie maker should edit and index his films. If he hasn't time to do it personally, he should employ somebody to do it for him. A moving picture record of the past is worth preserving carefully. Look over some of your old films and see if you don't agree.

In the past seven years, I've added dozens of 400 foot reels to the shelves of the old bookcase. Once a year, each can comes out, the blotting paper in the humidor can is moistened and, if the film has been projected much, it is cleaned.

Recently, my collection of color films has grown so rapidly that I have added a second bookcase for a color film file. The top shelf is filled with Kodacolor and the second shelf is already well on its way with Kodachrome.

I have discovered a number of little tricks or knacks in the care of films. For example, the best way to edit is to project the reels first or to run the film through a film viewing device.

When cutting out shots to be saved and assembled later, the scenes should be wound on reels or rolled up without reels. I have found that short scenes of five to twenty five feet, when left loosely in a basket or box, will dry out and gather dust. Films should be stored in 400 foot humidor cans. If cans are not available, a sponge of water placed in a dish or can should be kept in the same cabinet or case where the films are stored.

Kodacolor films should be cleaned frequently if they are projected much, for an accumulation of oil between the minute lenses destroys true color rendition. Therefore, this oil must be removed to obtain the best results.

Kodachrome film should be cleaned with extreme care and not any oftener than absolutely necessary. Kodachrome should never be cleaned with any fluid containing alcohol or other dye solvent. Kodachrome films are colored with dye pigments and, if these are removed by dye solvent, film cleaning fluids, they will destroy or distort the color balance beyond repair. It is probably safer to

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wipe Kodachrome film with a dry piece of soft plush, thus removing dust and dirt, and to clean it with the manufacturer's cine film cleaner only once or twice a year. The safest way to clean, even with the manufacturer's film cleaner, is to moisten the cleaning plush and then to squeeze all the excess fluid from the plush. The plush is then wrapped around the film and the film is passed slowly through the moistened pad held firmly in the hand. The film should be wound on the reel very slowly so that the cleaning fluid will have ample time to evaporate from the film surface. The position of the plush should be changed several times during the cleaning process in order to bring a new, clean surface of the pad into play.

If you have spliced much Kodachrome, you no doubt will have noticed that, after the emulsion has been removed, it is slightly difficult to take off all trace of color from the film base by scraping it. This does not matter particularly, for the film cement, when applied, usually removes the last trace of color left on the film base, and in any case the splice will hold. This is a different condition than one experiences when scraping the emulsion off old film, which has not been properly stored and humidified. In the latter case, the emulsion is hard and dry and needs softening before scraping for splicing.

I have found that it is much easier to edit if each roll of film is numbered when exposed and if notes on exposure, subject and the date are written on one edge of the film carton. I keep a small note book of data on exposure, unusual conditions of light, etc. I have found this most helpful later when editing or analyzing my results.

Care should be exercised not to put too much water on the blotting element of 400 foot humidor cans. An over conscientious friend of mine moistened the blotting paper every night, with the result that the film was too moist and began to stick together. Part of one reel of his Kodachrome was ruined in this way.

I have stored all my films in the basement of my home and I humidify them about the first week in October each year; this keeps them moist during the dry winter months, and the summers are usually humid enough so that they do not need a second treatment in the spring of the year, except perhaps when the films have been run through the projector often. The heat of the projection lamp tends to dry film out.

I believe that all exceptionally valuable films or films which are used a lot should be duplicated and the duplicates should be used for projection rather than the originals. I have had a number of my color films duplicated in black and white, so I have both color and black and white pictures of the same subjects. I store my most valuable pictures in a fire proof metal cabinet and, even though these are all made on safety film, I have a separate fire insurance policy covering my films in case of a fire in the house which might destroy or "water damage" any of them. This costs very little and protects to some extent the investment in my hobby.

In splicing films, I have found that a small stiff wire brush works much better than some of the metal scrapers regularly supplied. The wire brush does not damage the film perforation and does not stretch the film, making it wider at the splice and causing it to "click" on every splice when projected. A piece of medium fine sandpaper cemented to a small flat piece of wood can also be used to remove the emulsion from the film for splicing. A ready made substitute is found in the manicurist's emery boards. Film should not be wound up too soon after splicing; if it is, a drop of the moist cement may adhere to the next convolution of film, causing a horizontal spot. In the case of Kodachrome pictures, this is likely to be quite pronounced, for the solvent action of the cement may destroy the color where the moist splice presses on the strip below.

It is my belief that all movies, if given reasonable care, will last a lifetime. I have some films I made in 1915 and 1916 on 35mm. which are in perfect condition. I also have some 17.5mm. Movette pictures made in 1919, 1920 and 1921 to which I have given reasonable care. My reversal films made from 1923 on are all in excellent condition and all my films have been projected hundreds of times.

I hope that the above will help you with some of your problems.

Sincerely,
J. F. Holden

The clinic

[Continued from page 69]

stock, and they are handled in the same manner as the untinted film. A tint having a rather purple cast seems to be most popular, although certain blues and reds may be more appropriate to the scenes which are to follow them.—*R. Patterson Blackman.*

Correction ■ Because of unfortunate errors in copying, there were several incorrect figures in the depth of field tables that appeared in this department in the January Movie Makers on page thirty eight. The correct figures for the indicated points in the table for one inch *f*/1.9 lens are as follows:

f/1.9 at infinity, minimum distance should read 44′
f/1.9 at 50′, minimum distance should read 23′
f/1.9 at 10′, maximum distance should read 12′ 10″

HYPERFOCAL DISTANCES FOR 8MM. CAMERA WITH 12.84MM. FIXED FOCUS LENS.						
DIAPHRAGM OPENING	*f* 2.7	*f* 3.5	*f* 5.6	*f* 8	*f* 11	*f* 16
HYPERFOCAL DISTANCE	6'	5'	4½'	3½'	3'	2'

DEPTH OF FIELD TABLE FOR THE 15MM. *f* 2.7 WIDE ANGLE LENS.						
DIAPHRAGM OPENING	*f* 2.7	*f* 3.5	*f* 5.6	*f* 8	*f* 11	*f* 16
DISTANCE FROM LENS TO SUBJECT.	5' AND BEYOND	4½' AND BEYOND	3½' AND BEYOND	3' AND BEYOND	2' AND BEYOND	1½' AND BEYOND

Cut out these two tables and save them for your note book

f/2.8 at 25′, minimum distance should read 13′ 7″

f/5.6 at 3′, maximum distance should read 3′ 9″

In the table for the 12.84mm., *f*/1.9 lens (8mm. cameras), there is one correction:

f/16 at 8′, minimum distance should read 2′ 0″

Cine tables ■ Above are two useful tables for your cine note book, which you will find convenient for future reference. You can cut them out and paste them in a scrap book or on three by five inch cards. You will find that they will just fit comfortably on the cards. A series of these tables will appear in future numbers of MOVIE MAKERS. Watch for them.

Cine novelties for interior shooting

[Continued from page 66]

you had better raise the shade to the very top and block off the lower part of the sash, so that the light will fall on the subject approximately at a forty five degree angle.

A novel and interesting way to introduce variety in pictures of people or subjects taken indoors is to provide camera motion. To do this, one can make use of the familiar tea wagon. If rightly used, this perambulating piece of furniture will serve nicely as a camera truck. By choosing a smoothly carpeted or polished section of the floor over which it may travel, the tea wagon dolly will serve to imitate that effective theatrical device whereby the camera is drawn up to the subject. If your camera has a fixed focus lens, however, do not come closer than five or six feet, with the lens open at *f*/3.5. With an assistant and a focusing lens, of course you can "follow focus" at any distance, within the range of the lens, as you approach the subject.

An interesting variant of the tea wagon stunt is to have the lights go along with the camera on such an improvised truck. The most useful accessories for this purpose would be two reflectors of the clamp on type for flood bulbs. These could be attached at convenient places on the wagon, where support was offered, and they could be turned to point in the same direction as the camera. The camera might be made more solid by fastening it with tape to a heavy book. With this arrangement, wherever the wagon is turned, the illumination is sure to follow. This would be a novel and effective way to photograph, in motion, the contents of a room, whether human or otherwise. Of course, the electrical connection must always be maintained, and this had best be done through the agency of a single rubber covered cable having a double plug male receptacle at its end. Then, as the wagon is moved, it might be well to have an assistant to pay out the wire and to see that nothing gets tangled up in it.

With pictures taken in such a way, the light cannot fail to be of the flat, front variety. This may not be the acme of artistry in lighting, but the novel effect resulting from the moving camera will offset this. If you are moving *past* your subjects, remember to proceed slowly, because you are really "panoraming." If you are *approaching* your subject, you may go faster, if your fancy dictates. In the latter case, remember that the light power of your traveling illuminator will increase very rapidly as you approach the subject. According to the well known law, this increase in illumination will vary as the square of the distance, so that the light, when four feet from the subject, will be four times as powerful as it was when falling on the subject at eight feet distant. So, when negotiating this sort of approach, start with the lens open and, as you near the subject, have an assistant gradually close down the lens diaphragm as indicated by exposure meter readings made during a preliminary test. This operation need not be super accurately timed, since the latitude of the film will absorb a lot. You might find it a bit difficult to sight through the finder when the camera is in position on the wagon, but a little preliminary investigation as to which way the camera is pointing will enable you to discover the camera field well enough by using the lines of the wagon as direction indicators.

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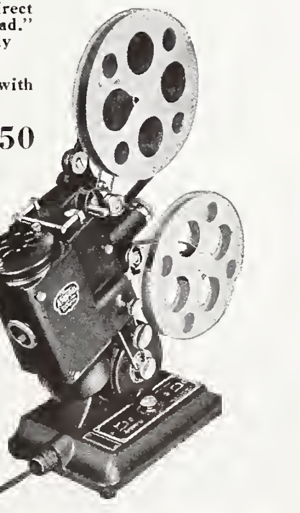

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sufficient cameraman, tired of being always behind the camera and never in front of it, has conceived that he may put himself concurrently in both positions by the simple expedient of shooting into a mirror. This works out very well, provided that he doesn't let the lights shine in the lens or mirror and remembers that the lens focus should be set for twice the distance from camera to mirror. But, in the usual production of such a shot, the audience sees the camera and cameraman both. For those who wish to make cine portraits of themselves without the illusion dispelling appearance of the camera on the scene, there is the interesting experiment of setting the mirror at an angle, so that it will reflect into the camera only the area immediately above or immediately adjacent to it (the camera). Then, all the cameraman has to do is to stand within the confines of this area, reach a hand out of the frame to the operating lever and fire at will. The camera, which should be on a tripod for this kind of experiment, may be set by sighting through the finder into the mirror and adjusting the latter until the desired area is included. If the mirror is inclined upward, the subject will seem to be photographed from below, giving a commanding appearance; if it is inclined toward the side, a semi profile effect is produced. Be careful to see that the lights do not shine in the mirror or camera lens. The setup is illustrated on page 66.

Silhouettes are favorite subjects for indoor movie makers and are easy to make, even with the slower black and white films. Here's how to produce a startling variant of the usual silhouette effect, which will completely mystify the average audience. Having selected the subject who is to perform the Great Silhouette Act, proceed to trace his life sized shadow on a piece of fairly stiff, opaque cardboard of suitable dimensions. This may be done by placing him close to the cardboard, which is fastened on the wall. A sharp shadow is cast by a single unshaded electric lamp placed about ten feet away. A simple head and shoulder profile is the most convenient and effective. Having drawn the outline of the shadow, get somebody who is handy with the scissors and let him cut carefully around the pencilled outline. This will leave a life sized silhouette in cardboard, defining a fixed position of the subject.

Now, hang up a smooth sheet in a wide doorway, set up the camera on its tripod and place a single powerful bulb behind the sheet. Have the subject go through his action as close to the sheet as possible. At the end of this action, the subject must assume the same pose he had when the cutout silhouette was made. (In fact, the cutout may be made at this point, if desired.) At any rate, as soon as he strikes this pose, the camera is stopped and the cardboard cutout is arranged in a position to cast the same silhouette as did the person. Then the camera is started again and, if the stunt has been well planned, the substitution of the artificial silhouette will not be noted by the audience. The cardboard silhouette then can be revolved slowly, making the subject appear to thin down to a single line. Or, another character may enter with a pair of scissors and nonchalantly proceed to snip off its head; this might be done in reverse a little later on. In this case, the film would be turned end for end and, with a second substitution, the silhouette will appear to come to life again. Or, a pair of staring, cutout eyes may suddenly appear in the shadow head. We will not dilate on the theme, for here is the motif and you can play the variations.

Managing the cast

[Continued from page 72]

a costume on that had everything but a tail? But he was a good sport and went through with the whole thing in high good humor. He looked quite fierce and handsome with his beard and mustache and bushy brows. As he came downstairs, a gale of laughter met him. Everybody laughed and kidded. "Old Harry" was certainly the life of the party! But to work. Mephistopheles must be finished with that night.

We set the lights and the camera and told Dick what he was to do. In the story, Mephistopheles walks in through the front door. Well, that meant that Dick had to stand outside our front door in the street, waiting for his cue. We offered to shield him with a blanket but, like a good trouper, he disdained our offer. Certainly, that little piece of business required more nerve than I have. Did you ever suddenly appear alone on a front stoop, dressed like Mephistopheles in fiery red with bristling black brows, mustache and goatee, close fitting red tights, flaring cape and red shoes curled up in front? Could you do it? Well, Dick did and he carried the whole thing off like a seasoned old trouper.

We took several shots of Dick and the group of children. The rest of the scenes were mainly closeups which we would later splice in after we had begun assembling. All the closeup shots of the children were taken the same way. The continuity, what little there was of it, was all developed in the splicing room.

Finally, the last shot was taken, and I think everybody was pleased and maybe a little relieved. Everything was packed up and put away. Nothing was left now but cutting, splicing, titling, etc. So we bundled the cast home and to bed and promised them a first showing in two or three weeks.

When the shots of Dick came back, we saw a dozen ways of making them more effective. But we simply didn't have the heart to ask him to go through the performance again. The nearest we came to that was to make a few closeups of his hands and arms, but we "faked" the costume with the sleeves of an old sweater which looked something like the Mephistopheles jacket.

At last, the story was all spliced together and the titles were made and spliced in. I was a little relieved myself, to tell the truth. I ran it through a number of times until I was "soaked" with it. I didn't know whether it was good, bad or indifferent. The children seemed to have done a good job acting for the first time, yet the story looked a little "puffy." Cutting would tighten it up and make it more effective, but the film was so short, after all the work, that I would have nothing to show my cast if I used my shears too freely. And, anyhow, it was mainly a family record. So I decided to let it go as it was.

I ran it again, to look for flaws, hoping that everything was O. K. I really tried to make something there. What was that? Better run that over again. Yes, there it was! A reflector showed in that picture on the wall. That strange, sinking feeling was on me again, but it gradually gave way as I slowly settled back and decided to let it go through as it was. After all, panting after perfection and never finding it is nothing new to me. But I suppose that I will continue that way while I make pictures.

Southward, ho!

[Continued from page 63]

your inspection, both outdoors and in glass walled conservatories. Color film is certainly indicated for this sequence, if there is any doubt in your mind about when to use it in the Indies, which seems pretty nearly all the time. You will want particularly to record the unbelievably gorgeous and varied orchids. If you don't feel that there's enough light inside the greenhouse for your color film, just ask the guide to carry your favorites out into the sunlight. Most of the champion blooms are in hanging baskets and the attendants are uniformly friendly and cooperative. Another nice bit is a record of the strange ferns which, pressed to the bare arm, leave a delicate silver tracery of their fronds.

When you return to town, there will be many subjects beckoning to your camera. The Myrtle Bank Hotel, universal meeting place for visitors, offers a nice sequence, what with its splendid palms, its gardens flanking the sea front and the small but popular swimming pool. If you like swimming, Bournemouth Baths will be your stop for the afternoon. Just a few minutes drive out of town, it offers elaborate facilities

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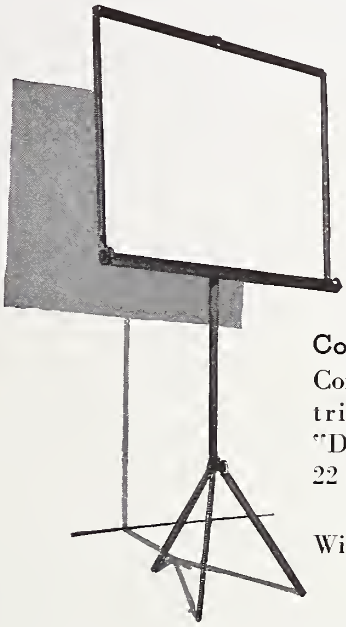

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Port au Prince, premier city of Haiti, is still another place one ought to have a look at before setting off across the Caribbean. Here, though in a much simpler way, we get the same feeling of old and new as we do in Havana. In the first place, there is definitely the old market and there is the New Market. You will like the older market place down by the water. Out in the open, it seems far more the real thing and certainly offers better filming. Here again, color film is almost a requisite. If you have any interest in Haitian history, you can add a brief sequence of the New Market, though it is grotesque beyond belief, housed in its open air, iron work structure. In good contrast to these sequences, you will find the newer developments of Haitian government buildings—the palace, government house and the headquarters of the gendarmerie—conveniently grouped around the Champ de Mars. There is an old cathedral which, when we were there, still was dotted with bullet wounds from an earlier revolution. In the afternoon, you will probably drive out into the hills toward Petionville. Here again lies contrast. Tiny huts nestle along the modern concrete highway and diminutive mules amble along its edges, accompanied by turbaned crones. Although you may find here and in the city that the natives sometimes fear your camera, it has been our own experience and that of others we know that they do not resent your picture taking or trouble you because of it, unless it be for a *gourde* or two.

When you go down across the Caribbean, we hope you still have plenty of color footage left. Towering red and green cliffs, terra cotta tiled houses climbing from the blue sea to a bluer sky, these mark La Guaira, gateway to Caracas, inland capital of Venezuela. You will want to make the thrilling twenty three mile drive over the Andes to this metropolis, noted for its fine homes, lovely flower market and buildings as Spanish as Seville. Up the coast, Willemstad gives you a tropic version of Holland, with its pink gabled, Seventeenth Century houses set close on narrow streets along both sides of a lagoon. You will not want to miss the operation of the famous pontoon bridge connecting the city and you should look for human interest and color in the waterfront markets, dotted with crazy craft of every description and every pastel hue.

Our favorite city of the southern Caribbean, however, is still Cartagena, historic landmark of Colombia. Here all the charm, beauty and wonder of the Spanish tropics have been preserved against a background of fabulous his-

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Amateur Cinema League, Inc.
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tory. From your entrance through Boca Chica to the moment when you stand high above the old walled city at La Popa, Cartagena seems a dream that cannot be true. Fortress walls thirty, forty or fifty feet thick make a highway for your car and house the destitute in dim chambers beneath. Heavy, rusted cannon and crumbling guard boxes key the scenes with romance and give your pictures depth, perspective and meaning. The ancient fort of San Felipe, with its labyrinth of underground passages, offers opportunity for framing your views with the customs of another day. The superb Sun Gate, chief entry through the old walls, is worth an entire sequence in itself, as are the ancient cathedral and gardens.

News of the industry

[Continued from page 76]

Willoughby list ■ A new compilation of still and cine bargains has been announced by Willoughbys, 110 West 32nd Street, New York. This list, which will be sent on request, is said to contain an unusual number of good values in movie cameras and projectors.

New Model Photoscop made for Photo Utilities, Inc.

"Dupers" warned ■ According to Walter O. Gutlohn, Inc., 35 West 45th Street, New York City, legal action will be taken immediately on any proved violation of the copyright on films owned and sold by that library, and vigorous steps will be taken by the organization in tracing "dupe" subjects to their sources.

New Special features ■ Two new filming aids have been incorporated in the Ciné-Kodak Special, made by the Eastman Kodak Company, Rochester, N. Y. The first is a frame counter, which provides an easily read dial that indicates the passage of each single frame through the camera, for every foot of film. The second is an audible shutter

from pictures . . . . .
. . . painted in light

by HERBERT C. McKAY

"—the man upon whose shoulders rests the responsibility for the quality of the result has but a single tool with which to work—Light."

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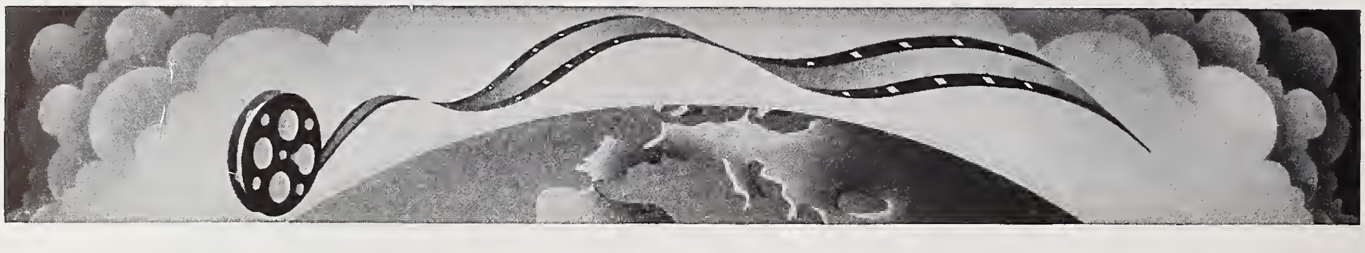

AROUND THE WORLD WITH MOVIE MAKERS

An International List of The Dealers Who Carry This Magazine—VISIT THEM!

UNITED STATES

ARIZONA

Phoenix: Sam's Cigar Store, 127 N. 1st Ave.
Tucson: T. Ed. Litt, Cor. Congress & Stone.

ARKANSAS

Little Rock: Jungkind Photo Supply Co., 114 W. Fourth St.

CALIFORNIA

Berkeley: Berkeley Commercial Photo Co., 2515 Bancroft Way.
Beverly Hills: Beverly Hills Home Movies, 417 N. Beverly Drive.
W. L. Martindale, 9477 Santa Monica Blvd.
Culver City: Rex Film Co., 8655 Higuera St.
Fresno: Laval Co., Inc., 1319 L St.
Potter Drug Co., 1102 Fulton St.
Stillman Drug Co., 2001 Van Ness Blvd.
Glendale: A. L. Kirkhuff Camera & Movie Supply, 148 S. Brand Blvd.
Hollywood: Bell & Howell Co., 716 N. La Brea Ave.
Camera Mart, 1652 N. Cahuenga Blvd.
Hollywood Camera Exchange, Ltd., 1600 N. Cahuenga Blvd.
Richter's Photo Service. 7901 Santa Monica Blvd.
Long Beach: Winstead Bros., Inc., 244 Pine Ave.
Los Angeles: George F. Adair, 306 W. Washington Blvd.
C. & W. News Stand, 711 N. Western Ave.
Craig Movie Supply Co., 1053 South Olive St.
Eastman Kodak Stores, Inc., 643 S. Hill St.
John R. Gordon, 1129 S. Mariposa Ave.
Hollywood Home Movie Supply, 6058 Sunset Blvd.
T. Iwata Art Store, 256 E. First St.
Marshutz Optical Co., 518 W. 6th St.
Peterson's Camera Exchange, 356 S. Broadway.
Schwabacher-Frey Co., 736 S. Broadway.
Spindler Camera Service, 756 S. Broadway.
Victor Animatograph Corp., 2402 W. Seventh St.
Wilshire Personal Movie Co., 3150 Wilshire Blvd.
Oakland: Eastman Kodak Stores, Inc., 1918 Broadway.
Oakland Camera Exchange, 376 14th St.
Sherman, Clay & Co., H. C. Capwell Bldg.
Smith Bros., 1721 Broadway.
Pasadena: Flag Studio, 59 E. Colorado St.
Harold A. Parker Studio, 479 E. Colorado St.
F. W. Reed Co., 176 E. Colorado St.
Riverside: F. W. Twogood, 3700 Main St.
Sacramento: Kimball-Upson Co., 1030 K St.
Magneto Shop, 1020 14th St.
Frank McDougal, 1017 10th St.
San Bernardino: Oxie's, Inc., 404 E St.
San Diego: Bunnell Photo Shop, 1033 Sixth Ave.
Eastman Kodak Stores, Inc., 419 Broadway.
Harold E. Lutes, 958 Fifth St.
San Francisco: Camera Shop, 145 Kearny St.
Eastman Kodak Stores, Inc., 216 Post St.
Hirsch & Kaye, 239 Grant Ave.
San Francisco Camera Exchange, 88 Third St.
Schwabacher-Frey Co., 735 Market St.
Sherman, Clay & Co., Kearny and Sutter Sts.
Trainer-Parsons Optical Co., 228 Post St.
San Jose: Sherman, Clay & Co., 273 S. First St.
Webb's Photo Supply Store, 66 S. First St.
Santa Ana: Stein's Stationery Store, 307 W. Fourth St.
Santa Barbara: J. W. Collinge, 19 E. Canon Perdido St.
Santa Monica: W. W. Martindale, 3rd & Bway.
South Gate: Hollywoodland Studios, 9320 California Ave.
Stockton: Holden Drug Co., 345 E. Weber Ave.
Logan Studios, 20 N. San Joaquin St.
Nathan Reiman, 528 E. Main St.

COLORADO

Denver: Akin & Bagshaw, Inc., 1425 Williams St.
Eastman Kodak Stores, Inc., 626-16 St.
Haanstad's Camera Shop, 404 Sixteenth St.
Home Movie Sales Agency, 259 S. Corona St.
The May Co., 16th & Champa Sts.
Durango: United Staty. & Conf. Co.
Gunnison: Little Art Studio, 247 N. Main St.
Montrose: Hess Drug Store.
Pueblo: Camera Craft Shop, 503 Court St.

CONNECTICUT

Bridgeport: Fritz & Hawley, Inc., 1030 Main St.
Harvey & Lewis Co., 1148 Main St.
Bristol: Lee E. Paulmann, 65 Laurel St.
Hartford: Harrison Harries, 360 Main St.
Harvey & Lewis Co., 852 Main St.
Watkins Bros., Inc., 241 Asylum St.
Meriden: Broderick & Curtin, 42 E. Main St.
Middletown: F. B. Fountain Co., 483 Main St.
New Haven: Fritz & Hawley, Inc., 816 Chapel St.
Harvey & Lewis Co., 849 Chapel St.
Mongillo's, 193 Church St.
Yale Cooperative Corp., 300 York St.
Norwich: Cranston Co., 25-29 Broadway.
Torrington: Flieg & Newbury, 45 Water St.
Waterbury: Curtis Art Co., 65 W. Main St.
Wilhelm, Inc., 139 W. Main St.

DELAWARE

Wilmington: Butler's, Inc., 415 Market St.
Frost Store, 915 Shipley St.
Wilmington Elec. Spec. Co., Inc., 405 Delaware Ave.

DISTRICT OF COLUMBIA

Washington: Columbia Photo Supply Co., Inc., 1424 New York Ave., N. W.
Eastman Kodak Stores, Inc., 607-14th St., N. W.
Fuller & d'Albert, Inc., 815-10th St., N. W.
Izzy's Exchange, Inc., 905 D Street, N. W.
Robbin's, National Press Bldg., 529 14th St., N. W., opposite Willard Hotel.

FLORIDA

Jacksonville: Eastman Kodak Stores, Inc., 129 W. Adams St.
Miami: Miami Photo Supply Co., 269 E. Flagler St.
Panama City: Friendly News Stand, Rear of First National Bank.
St. Petersburg: Robison's Camera Shop, 410 Central Ave.
Tampa: Burgert Bros., Inc., 608 Madison St.
Tampa Art Supply Co., 516 Tampa St.

GEORGIA

Atlanta: Eastman Kodak Stores, Inc., 183 Peachtree St.

IDAHO

Boise: Ballou-Latimer Co., Idaho at 9th St.
Pocatello: Cook Drug Co., 333 W. Center St.

ILLINOIS

Chicago: ***BASS CAMERA CO., INC.,*** 179 W. Madison St.
CENTRAL CAMERA CO., 230 S. Wabash Ave.
Almer Coe & Co., 78 E. Jackson Blvd.
18 So. La Salle St.
105 N. Wabash Ave.
Eastman Kodak Stores Co., 133 N. Wabash Ave.
Fair, The, Dept. 93, State, Adams & Dearborn Sts.
Marshall Field & Co., Photographic Dept., Sec. 59, State and Washington.
Movie Supply Co., 844 S. Wabash Ave.
Norman-Willets Co., 318 W. Washington St.
Post Office News Co., 71 W. Monroe St.
Seamans, Photo Finisher, 1953 E. 71st St.
De Kalb: Lundberg's News Stand, 324 E. Lincoln Highway.
Evanston: Almer Coe & Co., 1645 Orrington Ave.
Hattstrom & Sanders, Inc., 702 Church St.
Galesburg: Illinois Camera Shop, 84 S. Prairie St.
Oak Park: Hattstrom & Sanders, Inc., Cor. Forest & Lake St.
Rock Island: Rocklan Film Exchange, 38-40 State Bank Bldg.
Rockford: Camera Craft Shoppe, 112 N. Main St.
Springfield: Camera Shop, 320 S. 5th St.

INDIANA

Evansville: Smith & Butterfield Co.. 310 Main St.
Fort Wayne: Howard Co., Inc., 112 W. Wayne St.
SUNNY SCHICK, National Brokers, Washington at Ewing.
Frankfort: A. G. Chittick, 206 E. Walnut St.
Indianapolis: R. B. Annis Co., 1505-7 E. Michigan St.
L. S. Ayres & Co., Dept. 290, 1 W. Washington St.
W. Stuart Bussey, 17 E. St. Joseph St.
H. Lieber Co., 24 W. Washington St.
South Bend: Ault Camera Shop, 122 S. Main St.
309 S. Michigan St.

IOWA

Davenport: Eastman Kodak Stores, Inc., 318 Brady St.
Des Moines: Eastman Kodak Stores, Inc., 808 Locust St.
Westing Photo Service, 3816-6th Ave.
Iowa City: Rexall & Kodak Store, 124 E. College St.
Sioux City: Eastman Kodak Stores, Inc., 608 Pierce St.

KANSAS

Salina: Bangs Jewelry Co., 114 W. Iron Ave.
Topeka: Hall Stationery Co., 623 Kansas Ave.
Wichita: Lawrence Photo Supply Co., 149 N. Lawrence Ave.
Stevensons News Stand, 125 N. Market St.

KENTUCKY

Lexington: W. W. Still, 129 W. Short St.
Louisville: W. D. Gatchel & Sons, 431 W. Walnut St.
Sheckler's, 212 W. Chestnut St.
Sutcliffe Co., 225-227 S. 4th St.

LOUISIANA

New Orleans: Eastman Kodak Stores, Inc., 213 Baronne St.
Harcol Motion Picture Industries, Inc., 610 Baronne St.

MAINE

Bangor: Francis A. Frawley, 104 Main St.
Portland: Bicknell Photo Service, Inc., 15 Preble St.

MARYLAND

Baltimore: Eastman Kodak Stores, Inc., 309 N. Charles St.
Folkemer Photo Service, 2814 Rayner Ave.
Lewy Movie Service, 853 N. Eutaw St., at Biddle.
Stark-Films, 219 W. Centre St.
Zepp Photo Supply Co., 3044 Greenmount Ave.
Cumberland: A. M. Lichtenstein, 61 Baltimore St.
Hagerstown: R. M. Hays and Bros., Inc., 28-30 W. Washington St.

MASSACHUSETTS

Boston: Eastman Kodak Stores, Inc., 38 Bromfield St.
Hotel Statler.
Film Library of New England, 239 Columbus Ave.
Ralph Harris & Co., 30 Bromfield St.
Iver Johnson Sporting Goods Co., 155 Washington St.
Leeds 16mm. Cine Service, 100 Boylston St., Colonial Theatre Bldg.
Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
PATHESCOPE CO., OF THE N. E., INC., 438 Stuart St., cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
Cambridge: E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
Lowell: Donaldson's, 75 Merrimack St.
Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
Pittsfield: E. J. Curtis, Inc., 397 North St.
Salem: Pitman Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Tewksbury: Camera Exchange, 23 North St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: American Motion Picture Co., 2nd Floor, Charlevoix Bldg.
Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Camera Shop, Inc., 56 Monroe Ave.
Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich Bros. & Co., 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

(Continued on page 92)

warning, which notifies the operator when the variable shutter blade has been entirely closed, as when making a fade out. Among the new accessories for the Special are included a special magnifier for the reflex finder image and a lens extension tube outfit for filming very small objects without the use of microscopes.

U. S. Circular ■ *Sources of Educational Films and Equipment* is the title of an informative circular issued by the Editorial Division, United States Office of Education, of the Department of the Interior. The Circular may be obtained free of charge by writing to that department and specifying Circular No. 150. It contains much interesting source material and was compiled by Cline M. Koon.

Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bass Camera Co., Chicago, Ill., will send a 16mm. silent and sound on film library catalog on request.

■ Bell & Howell Co., Chicago, Ill., offers new sound films as follows: *Forgotten Island* and *Fury of the Storm,* each one reel; *Knight Duty* and *Boudoir Butler,* each two reel Educational comedies.

■ Eastin 16mm. Pictures, Davenport, Iowa, has for rent both silent and sound on film 16mm. subjects.

■ Eastman Kodak Co., Rochester, N. Y., offers Cinegraph subjects in both 8mm. and 16mm. widths.

■ Empire Safety Film Co., Inc., New York City, continues to offer *Alice in Wonderland,* which is available in ten separate episodes, each 100 ft. 16mm. A free catalog of various subjects also is available.

■ Exclusive Movie Studios, Chicago, Ill., is the sole distributor of Popeye and Betty Boop cartoons on 8mm. and 16mm. in 50 ft. and 100 ft. lengths.

■ Garrison Film Co., New York City, has the 16mm. sound film, *Crime and Punishment.* A catalog of outstanding subjects is available.

■ J. H. Hoffberg Co., Inc., New York City, has sound on film features and shorts for sale. *Personalities on Parade* is among those listed in a catalog which will be sent on request.

■ Hollywood Cine Film Distributors, Hollywood, Calif., has *Stanford-Southern Methodist Rose Bowl Game* and *Tournament of Roses Parade 1936* on both silent and sound on film 16mm. A catalog of complete 16mm. subjects is available.

■ Ideal Pictures Corp., Chicago, Ill., offers the 16mm. sound on film subject, *Skull and Crown,* starring Rin Tin Tin Jr., in addition to other sound and silent films included in a catalog which will be sent on request.

■ Kodascope Libraries, Inc., New York City, has the dramatic film, *The Covered Wagon,* and *Grass* on 16mm. sound on film and 8mm. and 16mm. silent. A sound on film comedy, *One Punch O'Toole* and an animated sound cartoon, *Jail Birds,* with Flip the Frog, also are offered. Complete catalogs are available.

■ Park Cine Laboratory, Brookyn, N. Y., offers the first of a monthly series on 8mm. or 16mm. silent film; this is a one reel Fontaine Fox cartoon, *Hello and Behold,* showing the Powerful Katrinka and the familiar Toonerville Trolley.

■ Pathescope Co. of the North East, Inc., Boston, Mass., has for rent or for sale two 16mm. instruction ski films. *Modern Ski Technique,* by Otto Schneibs and J. W. McCrillis, is on two 400 ft. reels; *Moosilauke Down Mountain Race* is 300 ft. long.

■ Ernest M. Reynolds, Cleveland, Ohio, has 100 ft. scenics for sale. *By Horseback Through Yosemite Valley* is included among others.

Practical films

■ The U. S. Office of Education and the American Council on Education in Washington are jointly conducting a survey to list all motion pictures which have an educational value. This will include classroom films and subjects useful to scientific workers, vocational classes and other specialized educational groups. The survey is being made under a grant from the General Education Board (Rockefeller) and is part of the work being carried by the American Council of Education which is sponsoring a proposed American Educational Film Institute. More than 10,000 film catalog cards have been mailed to 1,800 sources of films in this country. The card, which covers nearly 100 items of information, is designed to provide data for a complete analysis. Any person or organization that has produced, now owns or exclusively distributes a motion picture that should be included in this list and who has not received film catalog cards is invited to apply for a supply of cards by writing to the American Council on Education, 744 Jackson Place, Washington, D. C.

■ R. S. Kirby, ACL, Extension Plant pathologist of The Pennsylvania State College, has for the past two years been using 16mm. films in demonstrating the control of diseases in plants. His most recent undertaking is *Spraying for Apple Disease Control,* a picture which shows the depredations of scab, sooty blotch, bitter rot, apple rust and other diseases which attack apple orchards. How the damage can be prevented by proper spraying is clearly illustrated. Color closeups of affected blossom spurs and foliage enable the audience to identify the diseases. Another picture, *Control of Diseases of Ornamental Plants,* will soon be completed for screenings this year, while previously produced films, *Orchard Spraying for Disease Control* and *Flower Diseases and Their Control,* are finding steady use. They were projected for over forty farmer meetings during 1935. These films have served their purposes so effectively that the Division of Agricultural Extension of the Pennsylvania State College has purchased complete 16mm. equipment.

■ At the Ritter Travel Bureau in New York City, a 16mm. projection room occupies the favored place instead of the customary rack of travel folders. This concern, captained by A. J. Ritter, ACL, is equipped to show to prospective travelers movies of the places that they are considering visiting. Color reels of Bermuda are featured at present, but Mr. Ritter states that he will carry a large stock of travel films and that a projector always will be ready.

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(Continued from page 90)

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
St. Paul: Eastman Kodak Stores Co., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Three Forks: Olsen Studio, Box 488.

NEBRASKA

Beatrice: Roszell's Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 419 S. 16th St.
J. G. Kretschmer & Co., 1617 Harney St.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman Bookshop, 380 Springfield Ave.
Trenton: Dwyer Bros., 127 N. Broad St.
Stewart's School Films, 21 Liberty St.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 975 Flatbush Ave.
Buddy's Novelty Shop, 785 DeKalb Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc.. 202 Flatbush Ave.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Corning: Ecker Drug Store, 47 E. Market St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Howard Beach: Heller's Pharmacy, 100-20 159th Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
Ollie V. Crennan, 498 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Columbus Photo Supply, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co., Inc., 10 W. 33rd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
Henry Westpfal & Co., 4 E. 32nd St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: A. M. Knowlson & Co., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 648-652 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Toledo Camera Shop, 1221 Madison Ave.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., Cor. 4th and Boston.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St.. So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: American Junior Studios, 725 Florida Ave.
Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: W. F. Drehs, 541 Court St.
Scranton: Scranton Home Movies Library, 316 N. Washington Ave.
Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.
H. H. Page, 115 N. 6th St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
Harrisonburg: Harrisonburg Hdw. Corp., 38 N. Main St.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., E. Wisconsin & N. Plankington.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ALGERIA

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia Sud Americana Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Charles W. Donne, 157-159 Elizabeth St., Cor. Bourk St.
Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Orillia: Stewart Studio, 107 Mississaga St.
Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Nygade 2.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.
Cairo: Kodak (Egypt) S. A., Midan Ibrahim Pacha. Continental Bldg.
20 Sharia Maghraby.

ENGLAND

Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbin's, 131 High St.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.
Yorkshire: The Midland Cine Service, 19a Briggate, Shipley.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Photo-Lux (Bell & Howell Sub-Agent), 37 Cours Clemenceau.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
van Hoytemastraat 51-53.

INDIA

Bombay: Continental Photo Stores, 253 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., Ltd., 154 Dharamtolla St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Foto Regis, Sole Agents for Victor Equipment, Cor. of Hotel Regis.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 70 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORWAY

Oslo: A/S Narvesens Kioskompani, Postboks 125.
J. L. Nerlien, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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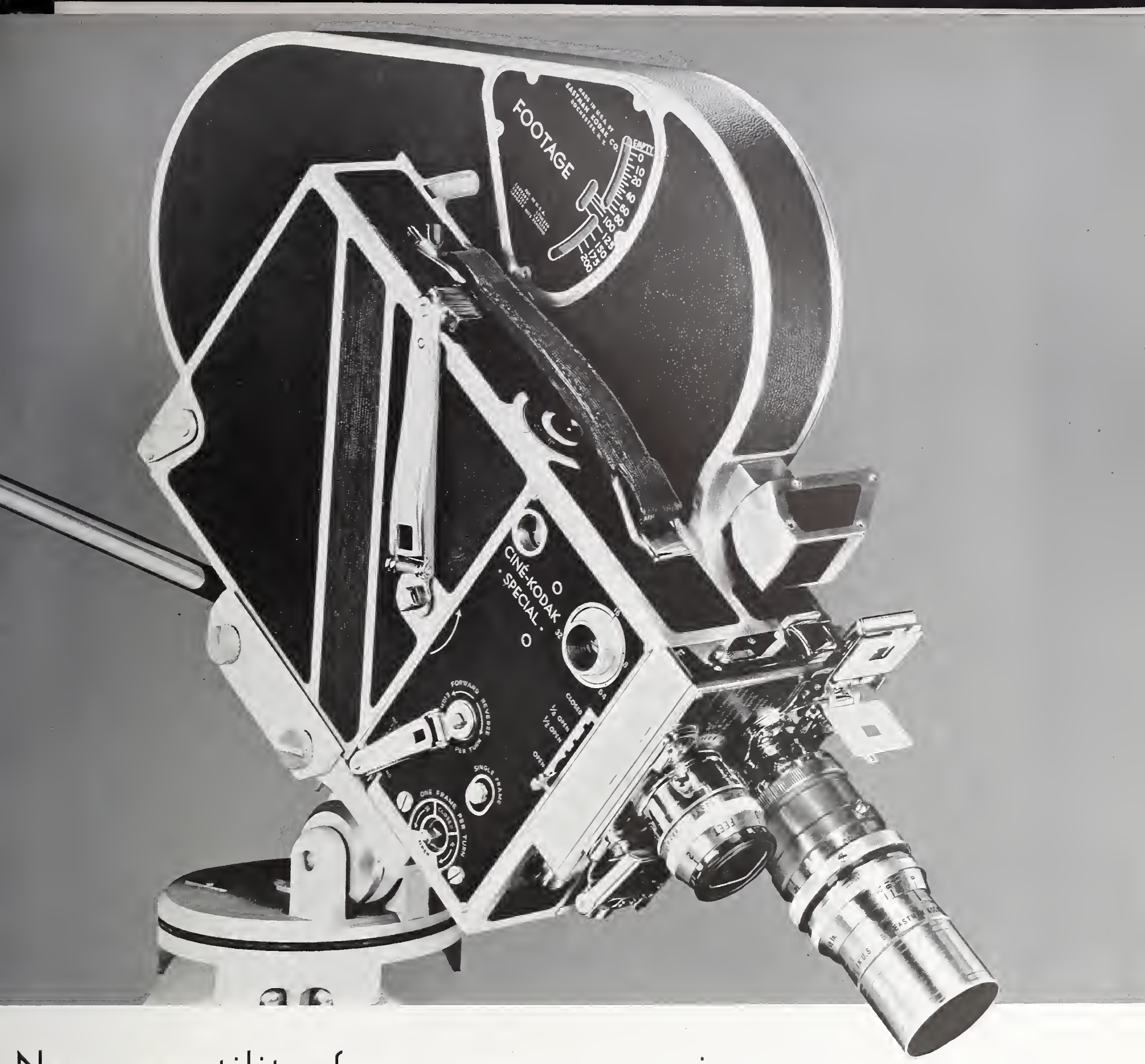

New versatility from new accessories

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LEADER IN THE 16 MM. MOVIE FIELD

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New features: A Frame Counter and an Audible Shutter Warning. The former's easily read dial keeps you posted on the passage of each of the forty film frames of each film foot, whether being exposed or wound back. The Audible Shutter Warning notifies you that the adjustable opening shutter has been closed, thereby banishing the possibility of wasted footage.

Thus is rounded out a host of unique features: Groundglass focusing with all focal length lenses, reverse take-up, mask slot between lens and film, revolving lens turret, interchangeable 100- and 200-foot film chambers, speeds from 8 to 64 frames per second, single frame release, one- and eight-frame hand cranks — to mention but a few.

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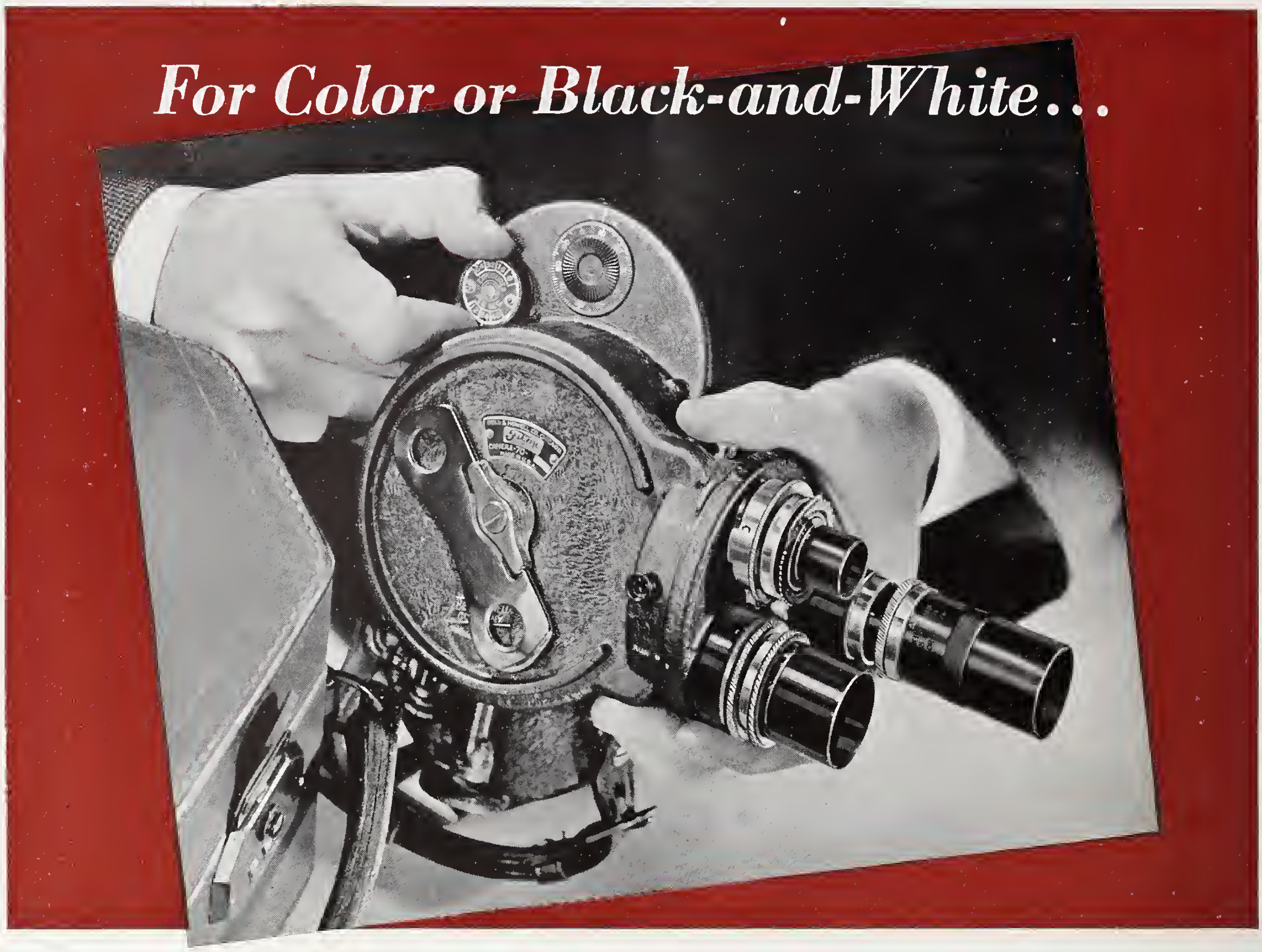

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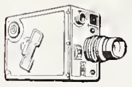

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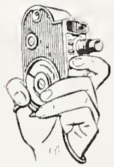

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might accurately apply to the marvelously small Filmo 8's which, using the new narrow 8 mm. film, take excellent movies so economically. Both Straight 8 and Double 8 are truly pocket-size and of typical B & H precision manufacture.

The Filmo 70-D's standard F 2.7 Taylor-Hobson Cooke lens is not only *fast* but it is ideally corrected for both color and monochrome, giving crisp, brilliant pictures. With Kodachrome or any 16 mm. film, the 70-D can be depended upon to give professional, theater-quality movies with utmost ease.

Most versatile, too, is the 70-D with its seven speeds, three-lens turret, and variable spyglass viewfinder. Its unusually large 216° rotary shutter opening contributes to its ability to cope successfully with adverse lighting conditions, often permitting the making of color movies where not otherwise possible. With the fast Taylor-Hobson F 1.5 lens (optional or extra) the 70-D is the ultimate color movie camera.

Similar in workmanship and appearance, but somewhat lower in price, is the handsome 70-E equipped with the same lens (without turret head) and having four speeds.

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

25c

MARCH, 1936

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■ BASS BARGAIN COUNTER: 25 years ago Bass set a precedent selling used apparatus on a money back basis, so order with confidence. Filmo Straight Eight, Cooke *f*/2.5 lens, like new, $49.50; Simplex Pockette *f*/3.5 lens, $34.50; Cine-Kodak Model B, *f*/3.5 lens, $27.50; Cine-Kodak Model BB, 50 ft., *f*/1.9 lens, $47.50; Filmo 75, Cooke *f*/3.5 lens, with case, like new, $47.50; Filmo 70D with 1″ Cooke *f*/3.5 focusing, 1″ Plasmat *f*/1.5, 3″ Cooke telephoto *f*/4.5, complete with case and filter, $185.00; latest Victor Model 5, like new, 25mm. *f*/3.5, 1″ Wollensak *f*/1.5, foc. mount, 4″ telephoto *f*/4.5, $164.50; new Victor 3, five speeds, with *f*/2.9 lens, $57.50; Cine-Kodak Model A with *f*/1.9 lens, $47.50; Cine-Kodak Model K, *f*/3.5 lens, like new, $57.50; Bell & Howell projector Model 57, 200 watt bulb, with case, $49.50; Bell & Howell Model 57, 400 watt bulb with case, $67.50; DeVry Model C, 250 watt bulb, with case, $42.50; Excel 100 watt motor driven, $14.50; 100 watt Keystone projector, like new, $18.50; Victor Model 25 sound on film projector, complete, like new, $247.50; DeVry 16mm. sound on disc, complete amplifier and projector, $42.50; 8mm. Kodascope 20 projector, like new, $18.50. Lens Bargains: 2″ Wollensak *f*/1.5, A focusing mount, like new, $42.50; a lot of 1″ Wollensak *f*/3.5 lenses in fixed focus mounts at $7.50 each; 1″ Cooke Special Anastigmat *f*/1.8, A, B or C mounts at $34.50; a lot of 1″ Hugo Meyer Plasmat *f*/1.5 lens, A or C mount, $42.50; 3″ Trioplan telephoto *f*/2.9, C mount, $34.50; 3¾″ Wollensak telephoto *f*/3.3 to fit Cine-Kodak B, $24.50; 3¾″ Wollensak telephoto *f*/3.3, A mount with filter, $24.50. Special extra lenses for Keystone 8 or Stewart-Warner 8: 12½mm. *f*/1.9, focusing mount, $32.50; 1½″ Wollensak telephoto *f*/3.5, focusing mount, $27.50; Weston 617 Type 2 meter with case, $13.50; Weston 617 Type 1 with case, $7.50; Weston Leica meter Model A, $9.50; Weston Leica meter Model 617 Type 2, $11.50; Excel rewind set, $1.00; used Kodacolor filters for nearly all cameras, $3.00 each; DuMorr Radial Wipe for Victor or Cine Special, specify which, $32.50 each; Bewi distance meters, $5.40 each; Filmolite Twin Arc Lamp, complete with case and stand, $10.00. Send for free copy of Bass Bargaingram No. 219 of 16mm. apparatus. BASS CAMERA COMPANY, Dept. CC, 179 W. Madison St., Chicago, Ill.

■ BARGAINS: USED SOUNDFILM PROJECTORS, 16 and 35mm.; sound heads; amplifiers; horns. Catalog mailed. S. O. S. CORP., 1600 Broadway, New York.

■ SIMPLEX FADING GLASS, guaranteed to make the popular fade-in and fade-out effects, $2.00; GOLD SEAL SUPERSCENICS, 100 ft. 16mm. film subjects, $4.50 each; send for list of various subjects. ERNEST M. REYNOLDS, 165 E. 191st St., Cleveland, Ohio.

■ SELECTED 16mm. library films in excellent condition at 20 to 60 per cent discount; also bargains in equipment. J. B. HADAWAY, Swampscott, Mass.

■ KODASCOPE Model B modernistic cabinet, used about ten times; Bell & Howell Viewer Splicer & Rewind; Bell & Howell projector, screen. H. J. SCRIBNER, 3708 Grand Cent. Term. Bldg., New York City.

■ PROFESSIONAL outfit; like new; cost $2,500; camera, lens, tripod and etc. Write for particulars; no reasonable cash offer refused. H. VAN GORDER, 13521 Euclid Ave., Cleveland, Ohio.

■ NEW Victor Model 3 16mm. camera, Wollensak *f*/2.7 lens, $55.00; Victor latest 5, turret, focusing, reverse action, 1″ Wollensak *f*/2.7 and 4″ Schneider telephoto *f*/3.8, case, $145.00; $35.00 Badgley automatic dissolve, $9.75; Filmo 57G 16mm. projector, 200 watt, case, $52.50; several Model 2 Victor motor driven projectors, $12.50 each; all ten day money back guarantee. FROMADER PHOTO SERVICE, Davenport, Iowa.

■ DE VRY sound on disc outfit to highest bidder; library of 3600 ft. thrown in free. ALFRED D. HORNSTEIN, 29 E. Madison St., Chicago, Ill.

■ BARGAINS in movie cameras: Filmo 70A, *f*/3.5 Cooke lens and case, $35.00; Victor Model 3, *f*/3.5 lens and case, $30.00, used, but good mechanical condition; quantity limited; act immediately. RAB SONS, 1373 Sixth Ave., New York City.

■ ONLY $106.50 buys this "like new" 35mm. B & H EYEMO, with its special 47mm. *f*/2.5 Cooke lens; speeds of 8 & 16 frames. For the 16mm. fan, we offer the new, three speed PARAGON with *f*/3.5, 1 inch lens for only $42.50; with *f*/1.5, 1 inch lens for only $54.50; they're brand new. Speed up your own 16mm. camera with a LUXOR *f*/1.5, 25mm. Anastigmat for only $24.95. Stewart-Warner camera repairs made with genuine S-W parts; we are headquarters for camera and lens repairs of all kinds; money back guarantee. Write for bulletin No. 236. BURKE & JAMES, Inc., 223 W. Madison St., Chicago.

■ ERPI sound on disc projector; excellent condition; 33 1/3 only; special pickup; heavy, integral construction; powerful illumination. BOX 192, MOVIE MAKERS.

■ UTILITY 16mm. film printers, 400 foot capacity, variable rheostat light control, precisely made, bronze bearings; closing out at $17.50; exceptional bargain; order at once, money returned if not satisfied after 10 days trial. FROMADER PHOTO SERVICE, Davenport, Iowa.

■ IT'S FREE! 1936 latest catalogue; real bargains on 8mm. and 16mm. movie equipment. Write now. ELDER, Dept. MM, Chelsea, Mass.

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■ BARGAIN: 500 watt Victor SOF projector; good condition; complete, $125.00. HAWTHORNE HOME MOVIE SERVICE, 142 Cedar Ave., Hawthorne, N. J.

■ BELL & HOWELL Straight 8 Filmo camera, new condition, $42.50; want Contax accessories. WILLIAM HOOPER, 315 Clearview Ave., Crafton, Pittsburgh, Pa.

■ EDITOR, Rhamstine with splicer, list $35.00, price $15.00; Victor 750 watt latest model 16mm. projector, case, list $148.00, price $90.00, new; DeVry 35mm. Model E projector, price $35.00; 16mm. sound films, Burton Holmes, Paris, Cliff Friend, Musical revue, either reel, $15.00; Elliott stencil addressor $10.00; 16mm. positive film for titles, 100 feet, $1.85, postpaid, includes later free development. J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

■ WRITE us of your need in motion picture equipment. We have cameras, projectors, printers, tripods, rewinders, 16mm., 35mm. If you have anything to trade or sell write O. & W. CINE ENTERPRISE, 729 Seventh Ave., New York City.

■ USED BARGAINS: DeVry 16mm. camera with *f*/3.5 Graf lens, $17.50; B & H Filmo 70A camera with *f*/1.9 Dallmeyer lens and case, $62.50; Victor model 3 with *f*/3.5 Wollensak Velostigmat lens, $30.00; B & H Filmo 70D with *f*/3.5 Cooke lens and case, $115.00: Ensign Super-Kinecam, turret front with 1″ *f*/2.6 Cinar lens and case, $85.00; B & H Filmo 70A camera with 1″ *f*/3.5 Cooke lens and case, $42.50; Eastman Kodak 8mm. camera model 25 with *f*/2.7 Kodak Anastigmat lens, $29.50; Cine-Kodak Model B with *f*/3.5 Kodak Anastigmat lens. $23.50; B & H Filmo projector, 500 watt bulb and case, Model S, $98.00; B & H Filmo projector Model JS, all geared 750 watt bulb and case, $182.50; Ampro projector Model KD, 750 watt bulb and case, $112.50; Kodascope Model K, 750 watt bulb & case, $140.00; Kodascope 8 Model 40 projector, 200 watt bulb, $25.00; Ampro Model A projector, 400 watt bulb and case, $79.50; Kodascope 8, Model 25 projector, $19.50; Willoscope Junior projector, 200 watt bulb, $19.50; 4″ Dallmeyer telephoto *f*/4 lens in focusing mount, $20.00; 3″ *f*/3.5 Dallmeyer telephoto in foc. mount, $25.00; 3″ Schneider Xenar *f*/3.8 in foc. mount, $22.50; 3″ Meyer telephoto *f*/4 in foc. mount, $42.50; 2″ Wollensak telephoto *f*/3.3 foc. mount, $20.00; 2″ Wollensak *f*/1.5 in foc. mount, $34.50; 6″ Dallmeyer lens, *f*/4.5 in foc. mount, $35.00; 6″ Wollensak *f*/4.5 lens in foc. mount, $30.00; ¾″ Meyer Plasmat *f*/1.5 in foc. mount, $32.50; 1″ Dallmeyer *f*/1.9 in foc. mount, $27.50; B & H Filmador for storing 3-400 ft. reels of film, 16mm., $2.75; Willo 400 ft. reel and can, $.95; Thalhammer Jr. tripod, $15.00; Ensign splicer, $5.00; Willo beaded collapsible screen in case, 22x30″, $7.00; Photoscop exposure meter, $12.50. WILLOUGHBYS, 110 W. 32nd St., New York.

EQUIPMENT WANTED

■ WANTED: 16mm. library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK, National Broker, 402 W. Washington, Fort Wayne, Ind.

FILMS FOR RENTAL OR SALE

■ LOOK! "THE WORLD'S GREATEST PASSION PLAY" depicting the entire story of the life of Christ; this crowning achievement is more elaborate than the OBERAMMERGAU stage play; complete story in 5 reels (new) 16mm., it's soul-stirring! RENT or purchase. Write HEMENWAY FILM CO., 37 Church St., Boston, Mass.

■ 16MM. used library films, $3.50 up; sound on disc subjects, $3.50 up; 100 foot odd film, $.75. HORNSTEIN SALES CO., 29 E. Madison St., Chicago.

■ "PASADENA Tournament of Roses," 200 ft., $12.00; "Falling Waters of Yosemite," 100 ft., $6.00; 200 ft., $12.00; 400 ft., $24.00; "Let's See Yosemite," 200 ft., $12.00; 400 ft., $24.00; "Crater Lake National Park," 200 ft., $12.00. Send for free, illustrated booklet listing all subjects. GUY D. HASELTON, 7901 Santa Monica Blvd., Hollywood, Calif.

■ 16MM. educational, comedy, cartoon films consisting various subjects, little used, perfect condition. Comprise private collection having served purpose of owner, available at price listed. No. 6007 Pathegram, Harry Langdon, "All Night Long," 400′, $12.50; No. 7015 Pathegram, Harry Langdon, "His Marriage," 400′, $15.00; No. 4510 Cinegraph, "Ship Shape," 200′, $5.00; No. 4569 and 4568 Cinegraph, "Our Gang Broadway" and Laurel and Hardy in "Right Dress," 200′, $5.00; Burton Holmes "Seeing London," 400′, $10.00; "Deadly Enemies," "Chameleon," "Sturgeon Fisherman," $5.00; Pathegram, Our Gang, "Ask Grandma," 800′, $24.00; Burton Holmes, "Seeing Paris," 400′, $10.00; No. 7508, 7518, 7069 Cinegraph, "Snap in Doodlebug," "Gingerbread Man," "Felix All Puzzled," 300′, $7.50; No. 7507 Cinegraph, "Chip Wooden Soldiers," "Laughing Gas," 200′, $5.00; "Felix on the Trail" and "Felix Finds 'Em Soft," 200′, $3.75; "The Alps and Rural Ireland," $5.00; No. 814A Cine Art, "Fairyland Midnight," 100′, $1.75; No. 804A Cine Art, "Mickey Goes Wild," "The Cat's Away," 100′, $1.75; No. 3507 Cinegraph, "Killing the Killer," 100′, $2.50. Any of these films while available will be forwarded prepaid upon receipt of check in full payment. Not available on approval. All films perfect condition. FREDERICK L. HOLMAN, 23 E. Maple Ave., Merchantville, N. J.

FILMS FOR EXCHANGE

■ EXCHANGE — SILENT and SOUND ON FILM HIGH GRADE FEATURES, comedies, cartoons, etc. SILENT PICTURES, $1.00 per 400′ reel. Silent catalogue No. 26; sound catalogue No. 1 available. If you are particular and want QUALITY, we ask your patronage. CINE CLASSIC LIBRARY, 1041 Jefferson Ave., Brooklyn, N. Y.

FILMS WANTED

■ WANTED: 16mm. FILMS (any quantity), projectors, screens, etc. ROBERT SWEET, 76 McKibben St., Brooklyn, N. Y.

■ WANTED: Original 16mm. reversal shots, showing world commerce; foreign ports; sugar and rubber plantations; Alaska salmon fishing; Hawaiian pineapple; Scandinavian pulp; China tea; etc. Write only length, description and price. A. G. STRICKROTT, 826 Pinewood Ave., Schenectady, N. Y.

PERSONAL OPPORTUNITIES

■ SALESMAN: capable; film humidors, movie screens, reflectors, recognized line; prefer men selling only well rated firms. BOX 191, MOVIE MAKERS.

MISCELLANEOUS

■ NEW movie books, camera, screen, projector and accessory bargains. Write for List D. It's free. MOORFIELD-SHANNON, Nutley, N. J.

Do you want to sell a second hand camera, projector, screen or set of lenses?

Then try MOVIE MAKERS Classified Advertising.

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MOVIE MAKERS
105 West 40th St.   New York, N. Y.

FOR MOVIES CRISP AND CLEAR AS SPRING ITSELF

MARCH means that winter is breaking up . . . and it's time to prepare for the season of outdoor movie making.

And to a whole army of cinemateurs, getting ready for outdoor shooting means stocking up on Agfa 16mm. Fine-Grain Plenachrome Reversible Film . . . the film that's specially made for general outdoor use. Its speed in daylight is practically that of 16mm. Panchromatic. It is fully sensitive to all colors except spectral red . . . and it combines exceptional brilliance, wide latitude, full orthochromatism and a truly effective anti-halation coating.

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A SPLENDID PHOTOGRAPHIC INSTRUMENT AT A MODERATE PRICE

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CONVENIENT TO CARRY EASY TO OPERATE

REQUIRES NO THREADING

INTERNATIONAL PROJECTOR CORPORATION 88-96 GOLD ST, NEW YORK, N

MOVIE MAKERS

Keystone

The magazine of the Amateur Cinema League, Inc.

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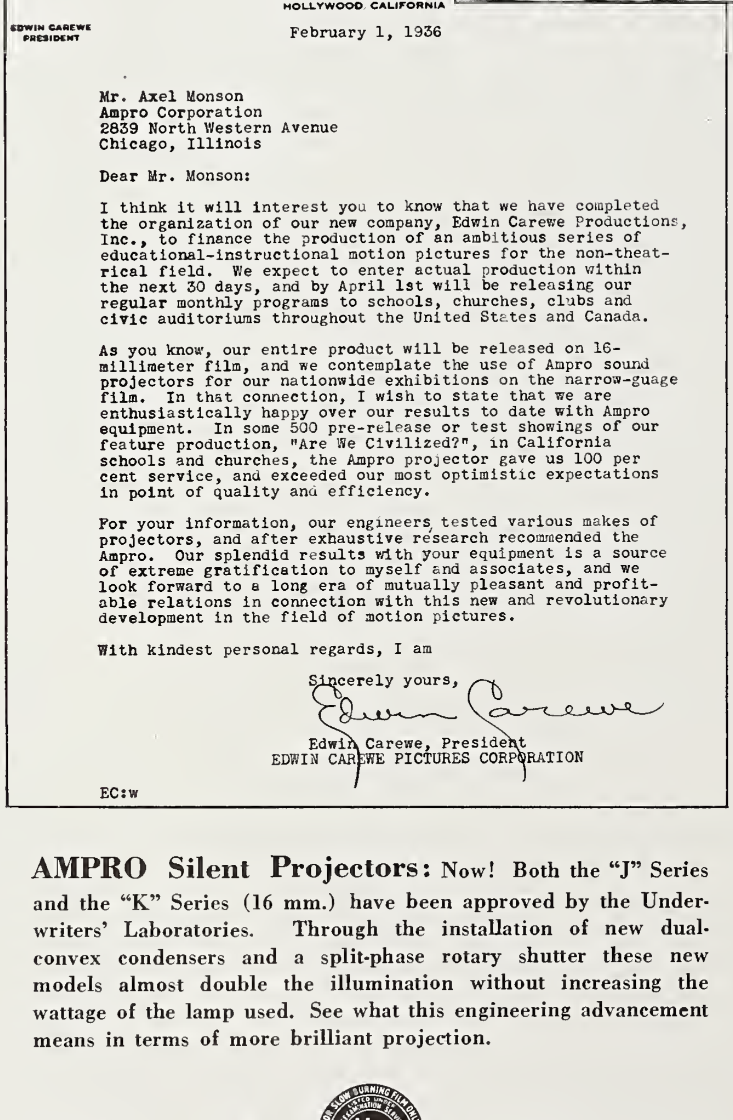
Advertising rates on application. Forms close on 10th of preceding months.

Noted HOLLYWOOD DIRECTOR *Selects* AMPRO_ _ _ _ _

Above—Edwin Carewe, who now heads his own Hollywood producing company, first sky-rocketed to fame through his excellent direction of such pictures as "Resurrection," "Ramona" and "The Spoilers." Right—a scene from his new production, "Are We Civilized"—the brilliant anti-war picture now being scheduled from coast to coast with Ampro Projectors before church, club and school audiences.



Edwin Carewe
Pictures Corporati
GENERAL SERVICE STUDIOS
1040 NORTH LAS PALMAS AVENUE
HOLLYWOOD, CALIFORNIA

EDWIN CAREWE
PRESIDENT

February 1, 1936

Mr. Axel Monson
Ampro Corporation
2839 North Western Avenue
Chicago, Illinois

Dear Mr. Monson:

I think it will interest you to know that we have completed the organization of our new company, Edwin Carewe Productions, Inc., to finance the production of an ambitious series of educational-instructional motion pictures for the non-theatrical field. We expect to enter actual production within the next 30 days, and by April 1st will be releasing our regular monthly programs to schools, churches, clubs and civic auditoriums throughout the United States and Canada.

As you know, our entire product will be released on 16-millimeter film, and we contemplate the use of Ampro sound projectors for our nationwide exhibitions on the narrow-guage film. In that connection, I wish to state that we are enthusiastically happy over our results to date with Ampro equipment. In some 500 pre-release or test showings of our feature production, "Are We Civilized?", in California schools and churches, the Ampro projector gave us 100 per cent service, and exceeded our most optimistic expectations in point of quality and efficiency.

For your information, our engineers tested various makes of projectors, and after exhaustive research recommended the Ampro. Our splendid results with your equipment is a source of extreme gratification to myself and associates, and we look forward to a long era of mutually pleasant and profitable relations in connection with this new and revolutionary development in the field of motion pictures.

With kindest personal regards, I am

Sincerely yours,

Edwin Carewe

Edwin Carewe, President
EDWIN CAREWE PICTURES CORPORATION

EC:w

AMPRO Silent Projectors: Now! Both the "J" Series and the "K" Series (16 mm.) have been approved by the Underwriters' Laboratories. Through the installation of new dual-convex condensers and a split-phase rotary shutter these new models almost double the illumination without increasing the wattage of the lamp used. See what this engineering advancement means in terms of more brilliant projection.

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demands AMPRO sound-on-film projectors to better screen his new 16mm. Production Program!

Rigid research and comprehensive tests convinced the alert Edwin Carewe engineers that their Hollywood 16mm. motion picture productions would screen more satisfactorily with the Ampro sound-on-film machine. Built to Ampro's standard of precision quality, this Model "S" actually delivers theatre-clear, theatre-brilliant pictures with rich, undistorted sound. No special operating skill required. The different church, club and school audiences attending screenings of the Edwin Carewe pictures will see professional productions projected in a thoroughly professional manner.

The approval of the Carewe organization fits in with the experiences of thousands of schools, colleges and home-movie enthusiasts. Over the years these Ampro owners have proved that for performance and long life, Ampro is the outstanding projector value. Ask your dealer to demonstrate Ampro—no obligation.

The
AMPRO
CORPORATION
2839-51 NORTH WESTERN AVENUE
CHICAGO

A small but able handful is the FILMO DOUBLE 8

8 mm. Movie Camera

A MOVIE camera as small as a "CANDID"

"Is it really a *movie* camera?" you ask. And no wonder, for it's so tiny that you would hardly believe the things it will do.

In the first place, it's *built!* It is done with typically fine Bell & Howell precision craftsmanship throughout. Hold it to your ear and listen to its steady purr. Your ear and your eye will tell you, "here is a fine camera!"

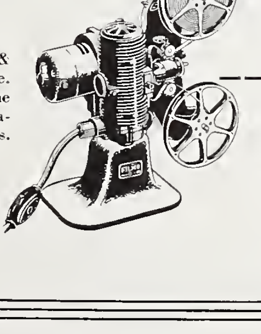
But what this 8 mm. Filmo *does* will amaze you even more. It will take from 8 to 32 pictures a second which the Filmo 8 mm. Projector throws to the screen in large, brilliant, steady, life-size movies of flawless quality.

You'll never be tempted to leave your Filmo 8 behind—it's so light and small, why should you? For ease of loading and operating it's "tops". No sprockets, loops or gates. The famous B & H spyglass viewfinder is always ready for instant use.

Take all the movies you want with low-cost 8 mm. film

With a 25-foot roll of double 8 mm. film costing only $2.25 (including processing) you can take the equivalent of 100 feet of 16 mm. film. That's less than the cost of still snapshots. This remarkably low operating cost makes a Filmo 8 a valuable adjunct to your Filmo 16 mm. movie equipment which you will use for the very finest of full color or of monochrome motion pictures.

See the Filmo 8's today or send the coupon for literature.

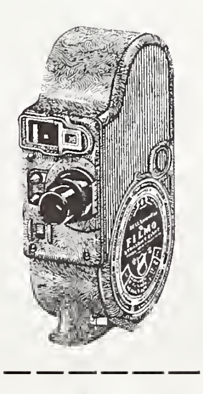


The Filmo 8 Projector is, like all Bell & Howell equipment, the finest obtainable. Projects *all* 8 mm. film. Matched with the Filmo 8 mm. cameras as to film registration, to insure rock-steady screen pictures.

Your Movie-Making Equipment Is Incomplete Without a Filmo 8

The Filmo Double 8 uses Eastman double-width 8 mm. film. The Double 8 is only 1¾ inches thick, 3 inches from front to back, and 5 inches high. Weight, only 24 ounces. Fine 12½ mm. F 2.5 lens, instantly interchangeable with telephoto and speed lenses. Built-in exposure calculator. Spyglass viewfinder gives large, brilliant, upright image and has masks to match extra 1-inch and 1½-inch lenses. Accurate, automatically set film footage dial. Rotary disc shutter, 1/35 second exposure at normal speed. Four speeds—8, 16, 24 and 32. Permanently attached, folding, non-rotating winding key. Rigid, non-warping die-cast aluminum-alloy housing. Price, $75. Sheath case, $3; compartment case, $7.50.

The Filmo Single 8, slightly thinner, uses B & H Filmopan costing $1.45 for 30-foot roll 8 mm. film. Price, $69. Cases, $3 and $6.



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Please send me full information about : ☐ Filmo Double 8, ☐ Filmo Straight 8, ☐ Filmo 8 Projector, ☐ Filmo 16 mm. Movie Equipment, ☐ Name of nearest dealer.

Name ....

Address ....

City .... *State* ....

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BRINGS NEW FAME TO A WORLD-FAMOUS NAME

Price need no longer be an obstacle to the enjoyment of Quality sound picture reproduction. Model 25 Sound-on-Film ANIMATOPHONE (for silent and sound projection) is priced at only $360.00! In addition to embodying the ingenious simplifications and mechanical superiorities that have always been traditional with Victor Cine products, Model 25 has the distinction of being the World's Smallest (45 lbs. total), Most Compact, and Lowest Priced HIGH QUALITY Sound Picture Reproducer. It is the ONLY 16mm sound projector that may be operated on D. C. as well as A. C. without use of converter. Ask for demonstration. . . . Let your own eyes and ears prove that ANIMATOPHONE 25 is without rival.

VICTOR ANIMATOGRAPH CORPORATION, DAVENPORT, IOWA • CHICAGO
NEW YORK • LOS ANGELES.

Farewell to the Chief

HIRAM PERCY MAXIM, the pioneer President of the Amateur Cinema League, is dead. To those of us who have been privileged to work with this uniquely great citizen of the world, there comes a realization that we have lost a personality, an influence that humanity can ill afford to lose in these critical days.

Above all else, Hiram Percy Maxim was world minded. His sympathies were never narrowly national and it was his persistent ideal that the two human activities he served so devotedly—amateur movies and amateur radio—should provide a practical method, for he was always practically inspired, to unite men of good will into a richer fellowship without regard to where they might abide. Again and again, he has said that the time would come when men should understand each other openly and honestly because, by the endowments of scientific invention in motion pictures and in radio, they could now see and hear each other. His stubborn faith in the dignity and righteousness of the human race never faltered. To him, men and women were fair spirits who needed only a common understanding to work out a common destiny and a common weal.

Mr. Maxim was one of the first rate speculative scientific minds of his age. His writings were couched in popular style and he did not disdain to make use of humor in speaking of the universe. His book, *Life's Place in the Cosmos*, was his honest report, as a student, of what evidence there is about the existence of life elsewhere than on the Earth. He was also a keen observer of humanity, to which fact his memoirs of his father, Sir Hiram Stevens Maxim, testify. The scientist never obscured the humanitarian in his makeup. He lived with his fellows simply and honestly and with genuine sympathy, because he pinned his faith to mankind above all else.

As a practical contributor to an era of invention, Mr. Maxim has established a lasting place in the roll of those who have achieved for the rest of the world. His working days were devoted to the silencing of industrial noises. Here, again, he was bent upon making the world a better place to live in.

Hiram Percy Maxim's service to the Amateur Cinema League was distinguished. He was its founder and its first President. To the last, he never slighted his duties as the League's chief executive. A few days before he left on the last fatal trip, he wrote to me, "I leave February eighth for a month's vacation. Be sure to send me anything upon which I must act, so that all will be in order before I leave." As Doctor Kinema, whose pseudonym is now revealed, he wrote article after article of wise counsel to amateurs for this magazine, wishing modestly to keep his own name subordinated.

I trust that movie makers will forgive me if I set down this personal tribute to my Chief, on this page where he has so often spoken to all of us at Christmas time. He was my friend and he gave to me without limit from his wisdom, from his gentleness and from his fineness. All of us at League headquarters are better for having known him. A great and gallant gentleman has gone out, from a peak of the Rocky Mountains, to know the cosmos as it may be revealed to him. For him, the keen zest of that great adventure—for us, "the rest is silence."

The AMATEUR CINEMA LEAGUE, Inc.

whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

Hiram Percy Maxim, Founder

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Blackstone Studios

Hiram Percy Maxim, ACL, 1869—1936

President of the Amateur Cinema League 1926—1936

MOVIE
MAKERS

Hiram Percy Maxim

by ARTHUR L. GALE, ACL

HIRAM PERCY MAXIM, President of the Amateur Cinema League, is no more.

In his sixty seventh year and in the full vigor of an active life—until a week prior to his death—the founder of the Amateur Cinema League died at La Junta, Colo., February seventeenth, at ten minutes past eight o'clock in the morning. Accompanied by his wife, Mr. Maxim had left his home in Hartford, Conn., February eighth for a month's vacation in California, during which it was his intention to visit Mount Wilson Observatory near Los Angeles, to carry forward his studies of the heavens, and also to meet with various Western groups of amateur movie makers. His throat became infected on the train and he was taken to a hospital in La Junta, where the end came after a brief illness, during which his magnificent physical vigor nearly overcame the fatal toxin. Mrs. Maxim and his two children were with him when he died.

To estimate the place of Hiram Percy Maxim in the history of the eighth art—the motion picture—must await the judgment of future years when the beginnings of that art shall have been more clearly comprehended. This much is evident at this time. The development of personal movies released the practice of the eighth art to individuals everywhere. To Mr. Maxim's vision and to his trained capacity as an organization leader—which he had developed with the American Radio Relay League—the world owes the creation of the Amateur Cinema League, which has served as an information center and service bureau for the thousands of persons, in every country, who have carried the eighth art forward by their experiments and accomplishments. Without his confident leadership, the Amateur Cinema League might not have come into being and, with it, the League has gone forward surely and definitely in its educational efforts. The League's chief knew what was needed and his clear, practical sense kept the organization on a straight path toward essential results. Under his inspiration and his courageous direction, organized amateur cinematography has built up a philosophy, a technique and an operating method that have stood the test of a decade.

Inventor and engineer, practical and speculative scientist, radio amateur, effective and original writer of books and magazine articles, useful citizen of his city, state and country, in many public services, and movie amateur with films of rare beauty and interest to his credit, the President of the Amateur Cinema League bulked large in the life of his epoch.

Hiram Percy Maxim, the founder of the Amateur Cinema League and its President from its inception in 1926 to his death February 17, 1936, was born in Brooklyn, N. Y., in 1869. His father was Sir Hiram Stevens Maxim, the inventor of the Maxim machine gun, and his mother was Louisa Jane Maxim. He was the nephew of Hudson Maxim, inventor of Maximite smokeless powder and the self propelling torpedo. In 1886, Mr. Maxim graduated from the School of Mechanic Arts of Massachusetts Institute of Technology as the youngest member of his class. Later he was awarded a degree of Doctor of Science by Colgate University. In 1898, he married Josephine Hamilton, daughter of former Governor Hamilton of Maryland. Mrs. Maxim, his son, Hiram Hamilton Maxim, his daughter, Mrs. John T. Lee, and a sister, Mrs. George A. Cutter, survive him.

Hiram Percy Maxim, son of a distinguished family of inventors and scientists, won international fame on his own account through his invention of the Maxim Gun Silencer and the subsequent invention with his son of the Maxim Industrial Silencer which has found wide application throughout the world, in some cases revolutionizing industrial conditions.

During his early career, Mr. Maxim invented numerous electrical devices and types of ordnance. Unlike his father and his uncle, his inventions were mostly non military. He was connected with the earliest automobile companies and invented the Columbia automobile. As President of the Maxim Silencer Company he was an active business man up to his death. He was a Lieutenant Commander of the U. S. N. R. and former Chairman of the State of Connecticut Aviation Commission.

To the radio world, Mr. Maxim was known as the President of the American Radio Relay League, the large organization of radio amateurs which he founded in 1914. He was the pioneer President of that organization and remained its President until his death. His passing will be deeply mourned by thousands of radio amateurs as well as movie makers. If is safe to say that no one man contributed more to amateur radio, for it was his great influence and able leadership that held that movement together when it passed through its initial legislative hurdles. He founded the International Amateur Radio Union.

Author of *Life's Place in the Cosmos* and numerous magazine articles in *Harper's Magazine, Scientific American, QST*, MOVIE MAKERS and various scientific journals, Mr. Maxim possessed a lively whimsical style, new to most scientific discussions. He had recently embarked on a series of newspaper and magazine articles popularizing scientific information and was achieving an outstanding success in this field. Writing was a hobby with him and he brought to it a freshness of approach and a lightness of style, in spite of his background of serious and important accomplishments.

Those movie makers who read his article, *Chromatic aberration*, in February MOVIE MAKERS will have savored the flavor of his modesty and his amused and tolerant approach to life. Under the *nom de plume*, Dr. Kinema, he has written many delightful and sparkling articles and stories for MOVIE MAKERS. A *nom de plume* suggested itself to him first because of his unassuming modesty and because, second, he hoped through its use to reach the sympathy of the average movie maker who might feel that the President of the League inevitably would write too serious and "advanced" an article for the average man.

When Mr. Maxim presided at the luncheon on July 28, 1926, when the Amateur Cinema League was founded, he already was an amateur movie maker of several years' standing. He was at that time President of the Hart-

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Try these in Bermuda

LAURENCE S. CRITCHELL, jr., ACL

IF BERMUDA is filmed in colors, they should be light colors—sea greens, pale coral pinks, blues milkier than Wedgewood china or a spring sky. With the possible exception of those plentiful cedars whose dark green is so harmonious with the rest of the island, there should be few somber hues, for the scenery of Bermuda, like its personality, is unobtrusive and gentle . . . a mood of quietness enhanced in some curious manner by numerous trivial things—sunlight on bicycle wheels, the faint dust hanging on a coral road after carriages have passed, leaf shadows moving. . . .

I would try to be on deck when my ship was entering Hamilton Harbour but, because of the lack of tonal variations in distant shots of Bermuda, I wouldn't photograph Hamilton until we were relatively close. Even when my ship was making fast to the wharf. which lies parallel with Front Street, I would shoot sparingly, remembering that the personality of the island which I am trying to portray on film lies partly in its total severance from the rest of the world—an outside world here represented by the steamer. Perhaps, however, there will be gay motor boats and other craft in motion in the harbor, which will furnish a scene that will tie to the spirit of the island.

An intimate study of the harbor will introduce Bermuda

Once within the streets of Hamilton, a host of impressions crowds upon me. I think I would make notes of them as I drove from the wharf to the hotel and then come back later to photograph them when I wasn't preoccupied with the details of minding my luggage. Those notes, I'm sure, would contain remarks about the number of carriages (not bicycles!) and the odd, flowing modernism of the houses along Hamilton Harbour.

Ellsworth Ford from R. I. Nesmith and Associates

Suggested scenes for cine visitors to southern isle

I would devote as much as a third of my film to Hamilton, for Hamilton, like Lucerne, has within it almost everything peculiar to the surrounding countryside. Perhaps the funny little white houses with their protective flower moats will tempt me to modern angles, but I'll overcome this temptation and choose angles which are more interesting than unique. For, in this case, as throughout Bermuda, I am confronted with the task of portraying the mild mannered, sunlit charm of the island—a charm too sedate for the conscious effort of modern angles. I would try to be on Front Street when the train of the Bermuda Railway is making ready for its departure from Hamilton. Although the entire journey of this little train occupies the space of only an hour, everybody—from the veriest dock hand to the young lady who, a week previous, would have been aroused by nothing other than the first night of a Noel Coward play—crowds about, supremely happy just to be in Bermuda.

Here, with a title explaining that the train is going only ten miles and then a sequence of long shots of the crowds interspersed with closeups of the individual farewells, I will have captured still more of the island spirit.

Setting out from Hamilton on my way to Somerset, on the western extremity of Bermuda, I would stop off en route at Elbow Beach to film in color or with panchomatic film the extraordinary combination of pink coral sand and transparent greenish blue ocean. I would try to keep my scenes in a moderately high tonal key, avoiding dark or silhouetted foregrounds and using, instead, the sunlit side of the rocks and cedar trees. A well placed leaf foreground is often an effective frame but, when the background is a gay and relatively unbroken expanse of light colors, that foreground may become disturbingly prominent.

At Riddell's Bay, a short distance this side of Gibbs Hill lighthouse, there is a coral quarry where I would stop for some scenes of the rock being sawed into blocks by means of ordinary woodsmen's saws—an amusingly unbelievable sight in black and white or in color. With color film, I would try to portray the delicate green shadings of the moss and lichen which, growing on the older rock surfaces, are in striking contrast to the white of the newly severed stone.

Gibbs Hill lighthouse is the highest point in Bermuda. From its summit, one gets a beautiful view of the islands, but on film the vista lacks distinction—in fact. it is disappointingly uninteresting. I think I would be satisfied, instead, with closer scenes around the nearby Waterloo Inn.

Somerset is at one end of Bermuda and St. George at the other, with Hamilton irregularly centered between them. Riding from Hamilton to St. George, I would watch the

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Here's a shot that would lack quality without a filter

R. I. Nesmith and Associates

The basis of filters

DR. WALTER CLARK

What they are and what they do and how they do this

NOW while we still have fewer hours of daylight for camera work and more for mental reflection, it is perhaps opportune to consider what filters are, what they do and how they do it.

There are three things which determine the way a filter acts. They are: the light which is transmitted by the filter; the quality of the light used for taking the picture; the light to which the film or plate will respond. It is quite impossible to understand fully the function of a filter without a knowledge of all these three things. A description of a filter as being, for example, a "three times filter" or a "yellow filter" is quite useless without a knowledge of the light it transmits, the light that illuminates the subject and the color sensitivity of the film.

The obvious characteristic of a filter is that it is colored. Filters are made of colored glass or of dyed gelatin, either used alone as gelatin film or cemented in glass for protection. There are very few colored glasses which have the right colors to serve all purposes and which may be reproduced from batch to batch in manufacture, and hence the majority of filters are made of gelatin to which specific dyes are added in accurate amounts. By proper selection of these dyes, it is possible to make filters having any desired characteristics.

Let us consider a well known filter, the Wratten K2. This is a clear yellow gelatin film used for haze cutting, emphasizing clouds in the sky and giving good rendition of tones with panchromatic materials. In making such a filter, yellow dyes are added to a mixture of gelatin dissolved in warm water. The gelatin is then spread in a thin layer on a sheet of glass in a machine similar to that used for coating photographic plates. The coated glass plate is cooled while maintained at a level, and the yellow gelatin sets to a thin, even layer of jelly, much as a table jelly used for dessert sets in the mold. The coated plates are then allowed to dry and, when the thin, dried gelatin sheet is later stripped from the glass, it is called a gelatin film filter.

The film filter obtained in this way is then checked to see that it has the right color and density. The experience of the filter maker has previously shown him the dyes to use and the amount required but, before he sells his filter, he checks its transmission, as it is called. This is done on an instrument known to the physicists as a spectrophotometer. A photometer is an instrument used for measuring the intensity of light. A spectrophotometer is a photometer which measures the intensity of light of any color in the spectrum. Its function in the control of filters is to determine the parts of the spectrum which are not passed by the filters and the extent to which other parts are transmitted. The values obtained by its use are plotted in the form of a graph to give the transmission curve from which all the optical properties of the filter can be read. Figure 1 on page 120 shows the transmission curve for the K2 filter, taken from *Wratten Light Filters* in which similar curves are given for all the Wratten filters.

The part of the spectrum absorbed by the filter is shown in black for ease of recognition. The height of the graph gives the amount of light of any wave length that is let through the filter. It is shown in terms of transmission (percentage of light let through) and density (logarithm of the reciprocal of the transmission).

The wave lengths of light are given in terms of Angstrom Units, designated briefly as "A". For example, 4000A. means 4000 Angstrom Units. This unit is a measure of the wave length of light. In radio broadcasting, the waves are long and are measured in meters, and we speak of a station as having a wave length of, for example, 1150 meters. The waves of light are exceedingly small, and a special unit is used to designate their length. Instead of saying "one ten billionth of a meter," we say "one Angstrom Unit." (Sometimes another unit, the millimicron (mu), is used; one mu is equal to 10A.). The spectrum which we see covers the range from about 4000A. to about 7000A. and can be divided roughly into three equal parts: blue, 4000A.-5000A.; green, 5000A.-6000A.; red, 6000A.-7000A.

If we examine the diagram, we shall see that the filter transmits no light of wave length 4000A. In fact, it does not let through any below 4600A., but above this it lets practically everything through. It thus transmits a small part of the blue and all the green and red. This

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A color portrait party

GERALD M. HUNT

A new answer for old query of what to do that's new

"JIM will take some color movies of us, so wear your best bib and tucker." With these devastating words, my assistant cameraman and friend wife concluded a telephone conversation with one of our friends. To be sure, the good woman meant no wrong, but to promise color movies of a group of eight or ten is a bit disconcerting to the man behind the camera.

To do my wife credit, she offered a few suggestions, and between us we produced what we thought might be a workable plan. Considering the lighting equipment I had, we agreed that it would be out of the question to attempt to film very large areas or even to try a scene that would include the entire group. Closeups or portrait shots seemed to be the answer, and I felt that perhaps we might make some very attractive scenes, having in mind one lady with the type of blonde hair which is intriguing to any photographer.

One thing we decided at once was to have as much of the equipment as possible set up and ready before the arrival of the guests. The cinematic ardor of more than one non movie making guest had been cooled by too much preparation while he sat by and waited. The filming must be done smoothly and easily and must be as much fun for the guests as for ourselves.

The dining room seemed to offer the best possibilities in lieu of the oft dreamed of recreation room and studio that we hoped to build in the basement some day. The window seat appeared to be the best setting in which to pose our models, and the curtains would make attractive backgrounds for some shots. We moved the table out of the way and cleared a space for the lights and camera as well as a place for those who wished to look on during the filming. My light control box, from which four flood bulbs could be operated on either bright or dim intensities, was placed on a stool beside the camera so that I could have easy access to its switches. The extension cord from the box to a baseboard plug I ran under the rug so that my guests, unaccustomed to having wires scattered about, would not trip over the power supply in the middle of a nice shot. My lighting units consist of two good reflectors, each with a flood bulb, one spotlight with a flood bulb and one clamp reflector with a fourth flood bulb. This gave me four "floods" in all — not many, but enough for what we wanted to do. My spotlight is on a good adjustable stand and the two reflector units are on a light music stand that is adjustable also. My clamp reflector was available for service where I needed it and, in case circumstances required, it could be held by somebody standing at the right place. My camera was placed on a tilting top tripod which was set in a triangular wooden frame to keep the legs from slipping. I had found this invaluable for indoor work because it insures a rock steady camera at all times.

While I was busy getting the equipment set up, my assistant and hostess was rummaging about upstairs. She appeared with an armful of such things as a Spanish shawl, a white silk scarf, a large piece of black velvet, a red velvet evening wrap and goodness knows what else. I added to her collection a large black focusing cloth that I used with my view camera and I got out my bead screen to be used for a white background if that were needed. We commandeered a few spring clip clothespins so that background fabrics could be hung quickly and easily on the window curtains.

We felt pretty proud of having arranged this setup before the guests arrived and, as we greeted them, they might have detected the glint in our eyes. Of course, we said nothing at all about movies, and the door into the dining room was shut. I felt that it would be much more sporting to let them bring up the subject. They did not all know our penchant for the hobby and I did not want to appear too eager. However, there is always one lady in a crowd who feels that she has Hollywood material in her grasp and is not unwilling to lend her decorative person for the purpose of making pictures. We had a charming guest of this description and her question started the ball rolling. Naturally, everybody was surprised when we led the way into our "studio." We felt it was only right that our friend who had introduced the idea of movie making should be the first subject. At once, much fun was poked at her, and because she was the first it took a bit of judicious handling to get her seated and over the giggling stage.

Her light hair and fair skin suggested a rather high key lighting, and I thought we might try a light background and costume. The beaded screen was placed on the window sill and the white silk scarf was draped on her shoulders. That had to be done by my worthy assistant. With a few deft manipulations, she arranged the scarf in a very attractive fashion. I brought the two main lights up so that they both were about six inches higher than her face. I stationed one of them about three feet from the side, almost in line with the camera, and the other I placed about two and a half feet from the face and a little more to the other side. It was about forty five degrees from the axis of the camera. We found, after testing, that this light would give best results about on a level with the face. Higher positions gave an unpleasant shadow under her nose. The spotlight, narrowed down to a rather small diffused circle, was thrown on the screen behind the subject's head but was not allowed to fall on the subject at all. The fourth light, the one in the clamp reflector, served to give a very slight backlight and was placed directly [Continued on page 127]

Publishers'

For one shot, black velvet furnished a dark background

It would be easy to make the swan appear to vanish

Joseph M. Bing, ACL

Tricks without traps

EPES W. SARGENT, ACL

Minus accessories, cine illusions may be filmed readily

MANY camera users refrain from making an attempt at trick shooting simply because their cameras are not provided with a set of special accessories. They do not realize that, with an ordinary camera, they can achieve novel effects which will serve to brighten up long stretches of straight film.

Just remember that the first man to achieve a trick shot, other than straight reverse motion, had no trick attachments. He was Georges Méliès, a French magician who turned photographer. His film jammed in the camera one day while he was making a test street scene. Méliès took the camera from its tripod, went into the dark room and straightened out the difficulty. Then he returned, put the camera back on the tripod and made some more footage of the same scene. The two sections were joined and run through the projector. Everybody gasped when a horse and wagon suddenly disappeared from view.

Méliès was quick to catch the idea and, from this small beginning, he worked out a whole bag of tricks, this particular original being known as "stop camera." Next to running the projector backward, this is the simplest stunt of all.

For instance, Jones, a commuter, rushes into a scene, brief case in one hand and a half eaten roll in the other. He stops and looks. The train is in the station. Suddenly the train has vanished. Cut back to the amazed Jones. To do this, you merely make a shot with the train in the station, stop the camera and, when the train has gone on, resume the shot.

If you are more ambitious, you can set up the camera by the railroad track. When a train comes along, film it at an angle that would make it appear as if the engine were rushing directly at the camera. (Eight frame shooting will give it the speed of the fast express.) When the train comes very close, stop the camera and then, after it has passed on, resume the shot from precisely the same position. On the screen, the train comes thundering along, suddenly to vanish.

Dramatize it a bit. After the train has gone, get a child to stand on the track. Shoot a few seconds of him registering surprise. Then tell him to puff out his cheeks and blow. In editing, use this continuity:

Johnny on the track. He sees the train coming.

Shot of distant train.

Johnny takes a stance and blows.

Back to the train, which vanishes. Johnny apparently blows it out like a lamp.

Shot of Johnny registering pride.

Using the same idea, you can achieve a variety of effects. Furniture or people can appear or vanish at will. The only requirement is a rigid camera support. If people are in a scene, call "Hold!" Then everybody must remain as immobile as possible. They resume interrupted action at the call of "Camera!" In a way, it is harder on them than it is on you.

Turning the camera upside down for reverse motion is another source of trick effects. It was the very first of them. The original shot was the diver who sails into the water and out again. Probably most amateurs of more than six months' standing have gone that far with their trick work. But why limit it to divers?

Pick out a wall, not so tall that one could not jump off it safely but tall enough so that, without the aid of trickery, no human being could possibly jump up to it. Have your subject stand on the wall and mark the position of his feet with chalk. Then have him jump up in the air about a foot and thus leap off the wall to the ground on the other side. Film this action with the camera right side up. Then have the subject climb back on the wall and stand in the same place as before, facing in the same way as before. The camera, which is in exactly the same position as for the first shot, is now held upside down. Instruct the subject to leap into the air again, but this time he will jump backward, landing on his feet facing the wall. When he lands, he runs backward out of the scene.

When the film comes back from the processing station, reverse the last scene end for end and splice it in front of the first. If the scenes are matched carefully at the splice, the subject will appear to run into the scene and to leap gracefully over the high wall. The preliminary jump into the air in both cases will provide for clearance over the wall. It is at this point that the two shots are joined, and one can trim off frames from both scenes until a point is found in both clips where the actor's position in the air over the wall matches almost identically.

You can make an entire short scenario of the hero performing similarly impossible tricks. Just remember that any scene made in reverse should show the action also in reverse.

Suppose that you want to stage

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News of the industry

RUSSELL C. HOLSLAG, ACL

Answers the query "What's new?" for amateur and dealer

Splicer 136 ■ A new, automatic film splicer for 16mm. single or double perforation film, as well as for 8mm. film, recently has been developed by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. The mechanism of the new splicer is modeled after that of the well known B & H Standard Laboratory Splicers, which are already in wide use in 35mm. work. In making a splice, each film end is located on pilot pins and held by clamp plates. A dry scraper is then brought into play, which removes the emulsion from the left hand end. Cement is then applied and the clamp plates are lowered into locking position. This operation also shears both ends of the film into the correct relationship and, in a few seconds, the splice is complete. A diagonal splice, recommended by this firm, is produced by the instrument. The Model 136 Splicer has a cast metal base which is designed to fit in with other Bell & Howell editing and rewind equipment, on the "Add-a-Unit" plan.

Obituary ■ Joining the industry in its sorrow in the sad event, MOVIE MAKERS regrets to announce the death of Andrew Wollensak, president of the Wollensak Optical Company, of Rochester, N. Y., and a pioneer in the field of lens development. Mr. Wollensak died on January 10, 1936.

Victor Directory ■ A new edition of the Victor Directory of Film Sources recently has been received. Issued by the Victor Animatograph Corporation, Davenport, Iowa, this handy book is of real value, because it catalogs 16mm. film sources available for the school, church and home and specifies whether such films are for free loan, rental or sale. Of particular interest, in this latest edition (the fifth), is the notable increase of 16mm. sound films. According to George E. Beyer, advertising manager and directory editor, the new edition will be distributed free of charge to present and prospective owners of 16mm. equipment who address their requests to the Advertising Department, Victor Animatograph Corporation, Davenport, Iowa. Free distribution is limited to one copy a person, with additional copies available at fifty cents each.

Kapit at N.E.A. ■ The case of 16mm. sound on film was ably advanced at the recent St. Louis Convention of the National Educational Association by Harry A. Kapit, vicepresident of Walter O. Gutlohn, Inc. Mr. Kapit, who had his headquarters at the RCA booth, discussed with school directors of visual education budget plans for screening recreational as well as classroom 16mm. sound on film subjects. He reports that the RCA deferred payment plan and the Walter O. Gutlohn, Inc., film service, which enable 16mm. sound screenings to be given on a self supporting basis, have met with wide approval.

Willoughbys ■ To serve better both cine and still photographic customers and to meet the needs of a growth in business, Willoughbys, 110 West 32nd Street, New York City, has added a floor to its present space. A balcony also has been added in the main store area and facilities, such as the projection room, have been redesigned with the most modern improvements. The new space has allowed an expansion in the repair and service departments and a considerable increase in the area allotted to cine equipment.

Winter sports film ■ The 16mm. rights to the sound film, *Swiss on White*, a recently produced theatrical short, have been acquired by Nu-Art Filmco, 145 West 45th Street, New York City. This film shows the winter sport experts at St. Moritz, where preparations were made for Olympic practice.

Horne color titles ■ Artistically made titles, filmed in full, natural color by the Kodachrome process, recently were demonstrated by the Horne Movie Service, 342 Madison Avenue, New York City. The production of these titles, made to order with full color backgrounds designed to suit the subject, is claimed by this firm to be the first in this medium to be offered commercially.

Camera support ■ A handy little gadget for steadying the camera which, we believe, was formerly known in Germany as a *bruststativ* (wonderful title!), has now been revised and perfected by Burleigh Brooks, 127 West 42nd Street, New York. The device, now named the Bee Bee Neck-pod, is made of leather and has an adjustable strap which goes around the neck and supports a small socket. Into this is fitted a miniature unipod which supports the camera. It is surprising how steady a picture may be taken by this means.

Wodnal ■ Wodnal Studio, 7915 Santa Monica Boulevard, Hollywood, Calif., specializes in 16mm. animation for art titles, maps, charts and all other similar purposes. At the present time, this studio has prepared a number of attractive animated stock titles, characterized as Unit Presentations. Full information will be sent on application.

Mirotex ■ An attractive group of medium and low priced screens, 16mm. and 8mm. film humidors, reflectors and other accessories has been made available by Mirotex Products, 6241 Southwood Avenue, St. Louis, Mo. The screens are obtainable in matte, silver and bead surfaces. The film humidor carrying cases make use of a sponge rubber pad as a humidifying unit.

Medo moves ■ The new address of the Medo Photo Supply Corporation, a long established photo dealer in New York City, is now 15 West 47th Street, just off Fifth Avenue. A. H. Niemeyer, head of this organization, is also president of the Guild of Photographic Dealers of New York City.

Park Cine library ■ The Park Cine Laboratory, which recently has increased and improved its facilities, now is offering the field an interesting series of silent 16mm. library films. The first subject to be announced was a Fontaine Fox cartoon, *The Toonerville Trolley.*

Color in Chicago ■ The third Kodachrome processing station to be established in the United States is now located at 1727 Indiana Avenue, Chicago, having been opened recently by the Eastman Kodak Company. The other two are at Rochester and Los Angeles.

Unusual pictures ■ To the ever growing number of 16mm. sound films, there recently have been added selections from outstanding foreign productions, including subjects like *A Nous la Liberté* and other artistic and mature productions. The latest feature to be added to the 16mm. list is the famous *Crime et Châtiment* (Crime and Punishment),

[Continued on page 129]

Presenting bases upon which films use audible aids

How sound fits in

PAUL D. HUGON

IF IT IS true, as Carl Sandburg wrote, that "To know silence perfectly is to know music," it is even more true that a knowledge of silence is necessary to talkie production. Silence is the background that brings out sound, just as the pregnant pause is the background that intensifies visual action. Not how to maintain a continuous din through the presentation, but how to supply the deficiencies of the screen image, so as to produce the maximum impression, is the problem of the talkie.

There are only four varieties of sound accompaniment: sound effects; music (including rhythmic tap dancing); narrative; and dialog. Each has a technique of its own, learned at great cost by theatrical producers.

Before undertaking the use of the first kind—sound effects—one should face squarely the problem of policy. Is it intended to produce a replica of life in all its complexity, or is it purposed, on the contrary, to make a dramatic selection from the multiplicity of available sounds, subordinating realism to symbolic suggestion? Complete realism is a will o' the wisp. An entirely realistic travelog of a large city, for example, has never been attempted, largely for mechanical reasons—the fading range of the microphone being infinitely smaller than that of the human ear. All street noises and street cries would have to be included, as well as snatches of conversation overheard from passersby, the whole punctuated by backfires and honking. Where professionals fear to tread, the amateur would be wise not to rush in.

Even with a less realistic policy, the selection of sounds is fraught with many perils. The appalling haphazardness of the sound effects machine of twenty five years ago, operated by one man whose job it was to rattle off as many accompaniments as possible, was a foretaste of the concoctions that may be expected unless dramatic value is definitely chosen as the sole aim. Drama, like all art, is a selection, not a replica of life. *Natural* sounds, such as the clop clop of horses' hoofs, the chirp of the crickets in the dead of night, the howl of coyotes, are not capable of great variation of intensity and therefore, to be dramatic, they must be inserted in a scene that is otherwise practically silent. *Mechanical* sounds, on the other hand, may be raised to any desired pitch and might well be mixed with one another and superimposed on conversation. The shriek of sirens mingled with the crackle of machine guns and the shrill blowing of police whistles can be doctored to suit any taste or purpose and to fit any background.

Probably the easiest way to be sure of one's sound effects is to buy them ready made, recorded on discs.

Dramatically, the very opposite of auditory effects is the second phase of sound technique—musical accompaniment. Here, instead of attempting to copy life (or even to suggest it), the purpose is to translate feeling. It should be realized, however, that many people are musically illiterate, if not actually tone deaf, so that a harmonic accompaniment is wasted on them. Mechanically minded people, too, are very likely to prefer the familiar realism of words and sound effects to the unexplained symbolism of the musical phrase.

Whatever use may or may not be made of music in the body of a film, the producer might well imitate radio sponsors by selecting a suitable theme or musical signature and using it invariably at the beginning and end of his pictures as a trade mark. With thousands of phonograph records to choose from, it should be easy to find a few distinctive bars that are not too common. This theme is best faded in, brought to a crescendo and faded out again while the main credit titles are still on, so that the action will open in total silence or at least after an interval of silence. In no case should the theme be interrupted in the middle of a bar or merge with the sounds of the picture proper, especially if the tempo of the production is noticeably different.

Neither the production of sound effects nor that of a musical background requires as much anxious forethought as that of narrative. It is with narrative, undoubtedly, that restraint is most called for and silence most golden. Not more than one half the footage, by actual measurement, should talk. But what should it say?

The wording of the spoken narrative resembles in one way that of the written title. First, the action is never to be "tipped off," because that would destroy surprise and suspense. Second, the spectator is not to be told anything that he is able to see with his own eyes, as, for example, "This is a picture of a horse; it is a farm horse." One of the worst forms of statement combining those two defects, and common in amateur films, is the announcement of an intention which is to be realized immediately thereafter as, "Then we decided to take a gondola." It is better to wait until one is actually stepping aboard and then to explain: "All gondolas in Venice are black, by virtue of an ancient

[Continued on page 122]

Four varieties of sound are offered a scene like this

Kip Ross, courtesy Plymouth Motor Corp.

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

New in Minneapolis ■ Seventeen local movie makers form the nucleus of the new Minneapolis Cine Club, successfully organized early this year. John Huebscher was named acting president, while Ormal I. Sprungman, ACL, frequent contributor to MOVIE MAKERS, was chosen acting secretary. A. J. Leigh, of the local Eastman Kodak Stores, Inc., will be in charge of future club programs. Among the members' films screened at the opening meeting of this group were: *South Sea Islands*, an 8mm. travelog, by H. B. Putnam; *Pheasant Hunting*, by Elmer Smith; *Motorboating on the Great Lakes*, by Mr. Huebscher. Amateur movie makers in the Minneapolis area who are interested in the club may get specific information regarding future meetings from Mr. Leigh.

Chicago celebrates ■ Organized in September, 1927, and claiming to be the oldest incorporated amateur movie club in the United States, the Chicago Cinema Club recently celebrated the second anniversary of the publication of its monthly club bulletin, *News Flashes*, with an attractive gala issue. S. F. Warner, ACL, first editor, will carry on his work in this field during the coming year of club activity. Another milestone in this veteran club's existence was the recent admission to membership of its first feminine member, Mrs. Wilma O. Breyer. The club has long been open to movie makers of the fairer sex, but it has remained for Mrs. Breyer to break the ice as No. 1. Meetings, which are held each Thursday, are generally at the club's headquarters in the Great Northern Hotel.

Club for Curaçao ■ In Curaçao, Netherlands West Indies, the Curaçaosche Smalfilmliga has recently been organized to promote the interests of local movie makers, according to a special dispatch to this magazine from C. H. Veltkamp, ACL, secretary. F. Visser, ACL, will serve as first president, while J. Van Essen, ACL, has been appointed with them on the board of directors. It is hoped that one of the first activities of this new club of movie makers can be an exchange of films, between this group and the Club Film Library of the Amateur Cinema League.

Larchmont Cinema Club is given a lighting program

Larchmont Cinema Club

Orange invites ■ League members and readers of MOVIE MAKERS in the community of of the Oranges, in New Jersey, are cordially invited by the officers of the Cinema Club of the Oranges to attend that group's second annual Guest Night meeting, to be held at the Hotel Montclair, in Montclair, on the 20th of this month. Admission tickets may be had on request to Dr. Stuart D. Forrest, chairman of the committee on arrangements, at 144 Harrison Street, East Orange. Other members of the committee are Clarence Potter, Dr. Charles Crankshaw, ACL, William T. Teague, ACL, Dr. Nelson W. Lockwood, ACL. Robert J. Smith, ACL, and Arnold M. Hill, ACL. Unusually complete projection arrangements will be used in the presentation of a program which features the club's annual competition to be judged by Frederick G. Beach, ACL, and James W. Moore, ACL, of the League's staff, and Charles J. Carbonaro, ACL, producer of *Children Grow Up*, a recent Ten Best award winner.

New York sweeps ■ In the recently completed annual interclub contest among four club groups of the Eastern seaboard, the Raymond L. Ditmars cup and first place in each of the three divisions of the competition went to the Metropolitan Motion Picture Club, of New York City. The other clubs represented in the contest were the Hartford Cinema Club, the Movie Group of The Telephone Camera Club of Manhattan, ACL, and the Cinema Club of the Oranges. *Pinch Hitter*, an imaginatively executed and finely photographed photoplay by Charles J. Carbonaro, ACL, won the Ditmars cup as best film of the competition and took first award in the dramatic films division for the Metropolitan club. *Egyptian Travelog*, by Sidney Moritz, ACL, and *The Animal Kingdom*, by Annette C. Decker, ACL, were the New York place winners in scenic and topical divisions respectively. At a late meeting of the M. M. P. C., selections from among the contest films were screened on a program which included a discussion of color filming by Mr. Williams, of the Weston Electrical Instrument Corporation, and the presentation of color reels by Konstantin Kostich, ACL, and Edwin Schwarz, ACL.

Boise elects ■ Orange W. Lemon was elected president of the Boise Camera Club for the coming year of club activity, at the recent annual business meeting held early this year. Harlon Nelson, ACL, will serve as vicepresident, with Mildred I. Johnson as secretary treasurer. The retiring president, Stanley Werner, has been appointed with them on the executive board of the club.

Lights for Larchmont ■ At a late gathering of the Larchmont Cinema Club, reported as one of the best attended this year, William C. Wolf, ACL, gave a thorough demonstration and discussion of interior lighting. A hundred foot roll of film was run through the camera in picturing his setups for straight, effect, dramatic and back lighting. The program was completed with a

[Continued on page 129]

The clinic

FREDERICK G. BEACH, ACL

Nocturnal reflections ■ Night shots of street scenes, or other outdoor views in which there are many electric lights, will appear to best advantage if they are made when the streets are wet either from recent sprinkling or by rain. Light rain will not interfere with taking a picture if the camera can be protected from it. Incidentally, an *f*/3.5 lens, used wide open with supersensitive panchromatic film, will give quite satisfactory results in a scene of a well lighted street at night.

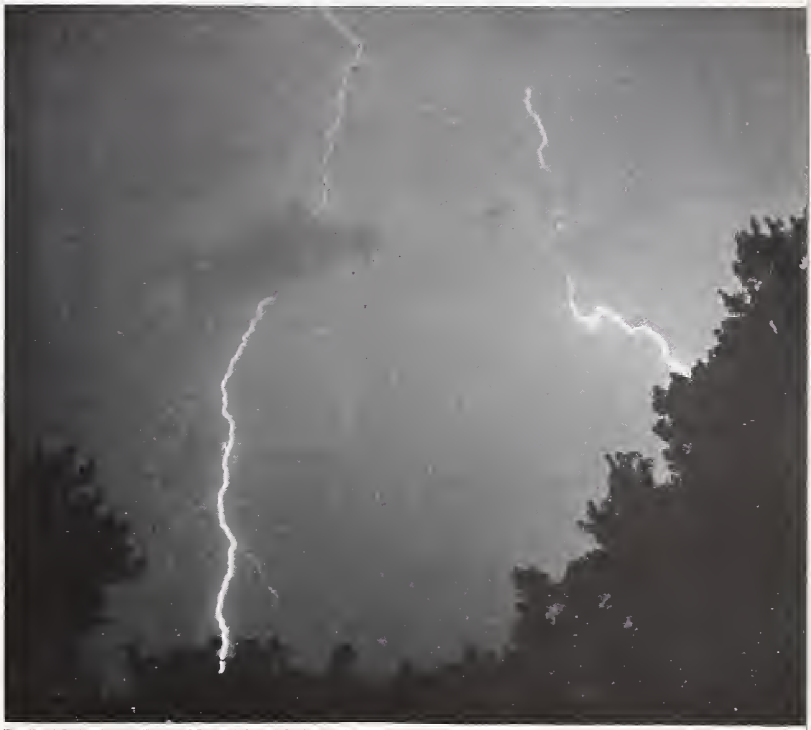
Positive titles ■ Occasionally a movie maker finds that his titles made on positive film do not appear to be in focus when the rest of his picture is sharp. If he changes the focus so that the titles will be sharp, he discovers that then the pictures are no longer in accurate focus. The only answer to this problem is to find a compromise point which will give satisfactory sharpness to both picture and title. The effect is seldom bad enough to constitute a serious objection to the use of positive film. When the difference in focus does occur, there is no remedy, for the cause appears to be a difference in the curl of the film rather than a difference in thickness, as is commonly supposed. Those who are very particular about the focus of the titles absolutely matching that of the scenes will find only one sure way of accomplishing it, that is to shoot the titles on the same kind of film as the rest of the picture.

Cine lightning ■ Filming actual lightning with a movie camera is pretty discouraging business. There is very little chance that anything will be registered on the film because of the fact that a lightning flash endures for such a short time. The average exposure on a movie camera is one thirty second of a second, whereas a flash of lightning lasts less than a millionth of a second. Therefore, it is likely that the flash would come when the shutter is closed and, if it did register, it would be on one frame only and the most fleeting glimpse would be seen on the screen. In nature, lightning flashes seem to have a longer duration because of the persistence of vision in the human eye. The camera does not possess this quality and the resultant flash on the screen does not have enough brilliance to cause the image to remain in the eye. In still photography, lightning is photographed at night by opening the shutter during a storm and leaving it open until a flash makes an exposure but, in movies, lightning shots must be "faked." The picture on this page, trimmed to fit a small titler, will enable anybody to do it. Shoot a few frames of this picture and cut them into a section of otherwise black film.

Red shots ■ During the winter and early spring, the sunlight has a larger percentage of red in it than during the bright summer months. This is particularly true of the late afternoon and early morning. The quality of the light is bound to affect the tones and shades of a subject in a color film, and therefore it is not surprising that the late afternoon sunlight of winter should give a scene a reddish cast.

Technical comment and timely topics for the amateur

Filters again ■ Amateur cameramen sometimes write the Technical Department and ask what factor to use with their 2x or 4x filter when shooting with a particular brand of film. That is very much like asking "How high is up?" Unless the exact name and type of filter are known, it is impossible to tell what factor it will have with any film. The term "4x" means "four times" and, if accuracy is needed, it is of value only when the filter having this qualification is used with a given film. It is important to know whether the factor associated with the filter actually applies to orthochromatic, panchromatic or supersensitive film. No filter has the same factor for all films except the neutral density. When writing for information on filter factors, be sure to give the full name of the filter as well as the name of the manufacturer, if it is known.



R. B. Hoit from R. I. Nesmith and Associates

Here's a "still" of lightning that will fit small titlers

Dancing pictures ■ If your pictures appear unsteady on the screen, it is a good plan to check the solidity of the stand upon which the projector rests. A light table will often vibrate enough to make the pictures dance on the screen. A good test by which one can discover if the stand is vibrating is to run the projector without film and to go close to the screen to measure with the finger any movement of the illuminated area. Sponge rubber pads used to silence projectors sometimes allow them to move up and down slightly.

Clean splices ■ Few things give a poorer impression than the appearance of a jagged white line on the screen when a splice goes through the projector. A properly made splice should not be visible on the screen. When scraping the film for the splice, be sure that you do not remove too much emulsion. A sharp scraper is the best insurance of neatness, and the splicer must be adjusted so that it will scrape only that part of the emulsion that will be under the overlapping piece of film. Clean the emulsion off so that the clear base is exposed. In the case of Kodachrome, it is not necessary to remove the bluish

[Continued on page 124]

Universal

Theatrical methods offer ideas to non theatrical filmers

Practical films

■ *Now For Tomorrow*, running 1200 feet, 16mm., is the latest serious and successful dramatic film to be produced by the Harmon Foundation and released through the distribution channels of its affiliate, The Religious Motion Picture Foundation, in New York City. Frankly a propaganda photoplay, the new picture points the importance of old age protection in general and lays especial emphasis on this form of insurance for registered nurses as supplied through the annuity plan of the Harmon Association for the Advancement of Nursing. The premier screening of the film took place recently in New York's Hotel Roosevelt before a distinguished audience of nursing officials gathered for the annual national committee meetings of the American Nurses' Association.

The direction and photography of *Now For Tomorrow* were in the hands of Kenneth F. Space, ACL, who was assisted throughout by Helen Harmon, still cameraman and advisor, and Daniel Lindsay, in charge of electricity and lights. Alice Roberts wrote the original plot treatment from which the film was scenarized, while Elizabeth Rogers planned and supervised the musical score played via double turntables during the film's première. The four leading parts, each interpreted with unusual sincerity and quiet charm, were played by Coila De Nespoli, Emerson Congelman, Mary McHine and Elizabeth Brady, ACL. Among the lesser rôles, helpful bits were contributed by Persis Rogers, Samuel Lindsay, William Rogers, Daniel Lindsay, Gertrude Ellis, Helen Harmon and Fernando Schomburg.

■ *Sizing Up Size*, a highly technical 16mm. industrial film delving into the theories of paper sizing, is now being produced by the National Oil Products Company, in Harrison, N. J. The picture, which is being directed and photographed by Arnold M. Hill, ACL, will feature the actions which take place when paper pulp is sized with rosin and wax size. Since the significant changes to be pictured are too minute to be recorded through regular lenses, a high powered microscope, working at about 1000 diameters magnification, will be employed for the enlargement necessary to tell this microscopic story. In order to obtain better definition, dark field illumination with a strong arc lamp as the light source will be used in the cinemicrographic sequences. When completed, the film will be screened at meetings concerning paper technique throughout the country.

The non theatrical movie as used for various purposes

■ Filmed at St. Anton in the Austrian Tyrol and under the technical direction of Otto Lang, *Skiing*, an 800 foot, 16mm. ski instruction film produced by Jerome Hill, II, comes to this country with the stamp of authority and authenticity. In it, Mr. Hill has presented in carefully sequenced detail the fundamental teachings of the famous Arlberg school of ski technique, with his entire scenario and treatment bearing the seal of approval of Hannes Schneider, the master of Arlberg. These fundamentals are presented in six parts, as follows: the Schuss; the Snowplow; the Snowplow Turn; the Stemm; the Stemm Christiania; the Parallel Christiania. A delightful introduction and a stunning, climactic finish, all enhanced by splendid snow photography, mark this film as one of the outstanding contributions of amateur filming to the newly popular sport of ski running.

■ The seventy fifth anniversary of the establishment of the first school in Denver, Colorado, was the motif of a 16mm. production recently filmed by Eugene H. Harrington, ACL, principal of one of Denver's schools. Material for the picture was drawn from the exhibits and studies of pioneer life made by the various grades of an elementary school in Denver. The project which supplied the film material, under the supervision of George McMeen, another school principal, enlisted the cooperation of every pupil in the school. The resultant film not only pictures the historical material gathered but also illustrates, for the benefit of parents, how such a school activity is undertaken and carried to a successful conclusion. The film has been shown to social, civic and parent teacher groups in Denver.

■ A 16mm. film on fly tying, the winter hobby of enthusiastic anglers, has been completed recently by G. W. Neubauer, ACL, of Bristol, Conn. The fly tying technique represented in the film is based on a book lately prepared by E. C. Gregg, and the picture emphasizes the simplicity of the hobby. It has been screened at several sportsmen shows in New England.

■ *Here Comes the Mail*, the splendid record of the postal service made by H. L. Hanson, ACL, of St. Paul, Minn., with the cooperation of the United States

[Continued on page 132]

Showing the surgeon at work

PHILIP A. O'CONNOR

Needs and methods to be considered in surgical films

SOME surgeons and dentists have hesitated to make motion picture records of their technique because they believed that, although they might be proficient movie makers in the field of personal filming, neither their equipment nor experience would fill the need when it came to movies of their profession.

This is the wrong way to look at it. Although the production of a good medical film may require smoother technique than personal filming, this need is answered by the simple expedient of *taking care*, and, as for equipment, that which is necessary for filming an operation is the same as that which would be used in making an interior picture at home. Then, in cases which require it, the surgeon can get the help of another movie maker. A camera with a standard one inch lens will meet requirements very well if an advantageous position close to the operating field can be obtained.

However, if a two or three inch focal length lens is available, it will be found more convenient for use on all surgical work. The reason for this is that the camera thus equipped may be placed well away from the field, with less likelihood of the surgeon or his assistants blocking out a portion of the picture. At the same time, there would be included in the picture area approximately the same field that would be given by a one inch lens working close to the subject. By the same token, a one inch lens or a wide angle lens, because of the large areas they include, will be found to be more satisfactory for filming the administration of the anesthesia, draping the patient, dressing the wound at the end of the operation and such views as may be deemed necessary.

A tripod should be used in conjunction with the one inch lens, in order to obtain smooth results, and it is absolutely necessary with lenses of longer focal length.

Perhaps the most convenient filming position for both surgeon and movie maker is at the end of the operating table. By mounting the camera on the tripod and placing the tripod upon a substantial table or specially built stand which has been stationed at the end of the operating table, an unobstructed view of the operating field will be had. If the tripod is mounted on a stand, its legs should be taped or clamped to the surface to insure that they will not slip.

The amount of artificial illumination necessary to secure proper exposure will vary, of course, with the type of work to be done. It is also dependent upon the brightness of the daylight admitted into the operating room. In a modern operating room with light colored walls, very little artificial light is needed to film an operation on a bright day. However, as daylight is an uncertain factor, it is well to be equipped with at least four flood bulbs in reflectors or two 500 watt lamps in reflectors. With this supplementary light, pictures on supersensitive film can be made independent of daylight. In addition, this lighting equipment will permit stopping down the lenses to a point where a considerably greater depth of field is obtained than would be possible if daylight were used as the main light source.

While there are available tables listing the number of flood lamps required to illuminate a scene at a given distance and with a given diaphragm stop, the actinic value of the additional daylight under which the majority of surgical pictures are made introduces an uncertain factor that is difficult to gauge. Under these conditions, and, in fact, in all indoor work where light value is not standardized, the use of an accurate exposure meter will solve the problem by eliminating guesswork.

Supersensitive panchromatic film has been found to be the most satisfactory for black and white 16mm. medical films. Because of its speed, this film permits the lens diaphragm to be closed down approximately one and one half additional stops when used with artificial lighting. The depth of field thus gained will be found very welcome, particularly in photographing surgical work in the abdominal cavity where the depth of the field of the operation itself is considerable. The color rendition of supersensitive film has proved to be entirely adequate for ordinary purposes—even to the extent that filters are unnecessary for general operating room work.

The details incident to filming an operation are simple. When the camera is in position at the end of the operating table, as outlined above, if visual focusing is not possible, the distance from the focal plane of the camera to the surgical field should be measured carefully. Adjust the position of the camera so that this distance will permit setting the focusing ring on the exact footage marker. This will eliminate the guesswork encountered in attempting to set the focusing ring at fractional distances. The importance of accuracy in this regard cannot be overemphasized, for an error of an inch or two may mean the difference between sharp and out of focus pictures. While, by following this procedure, there will be an increase or decrease in the area of the field included in the picture, which may or may not be desirable, the com-

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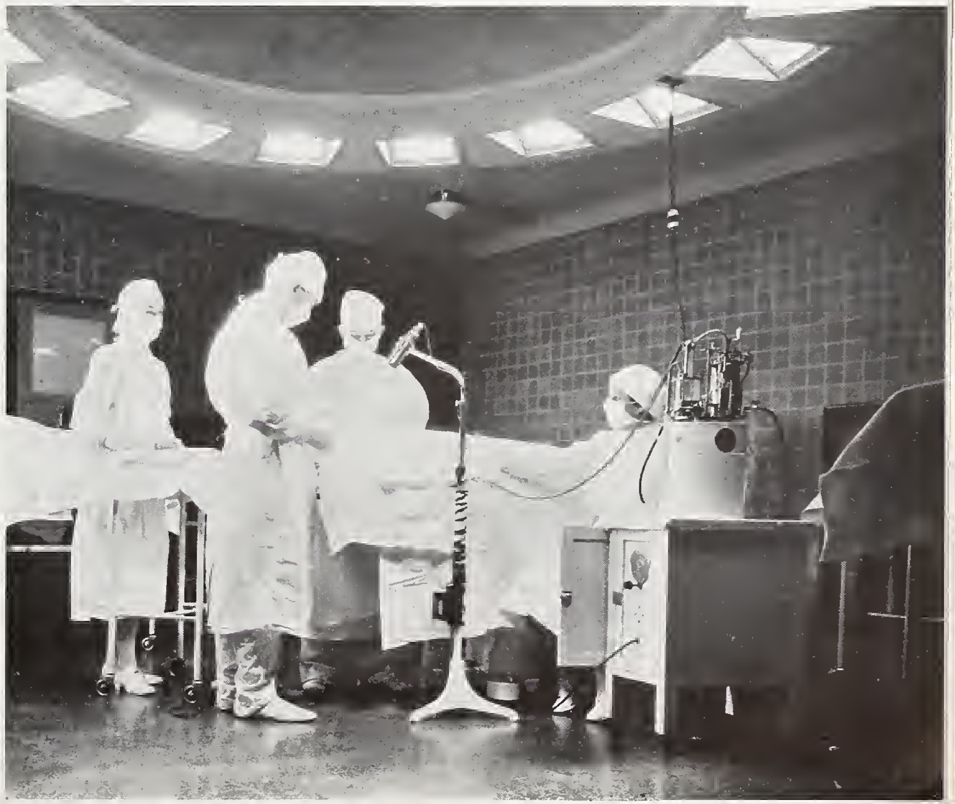
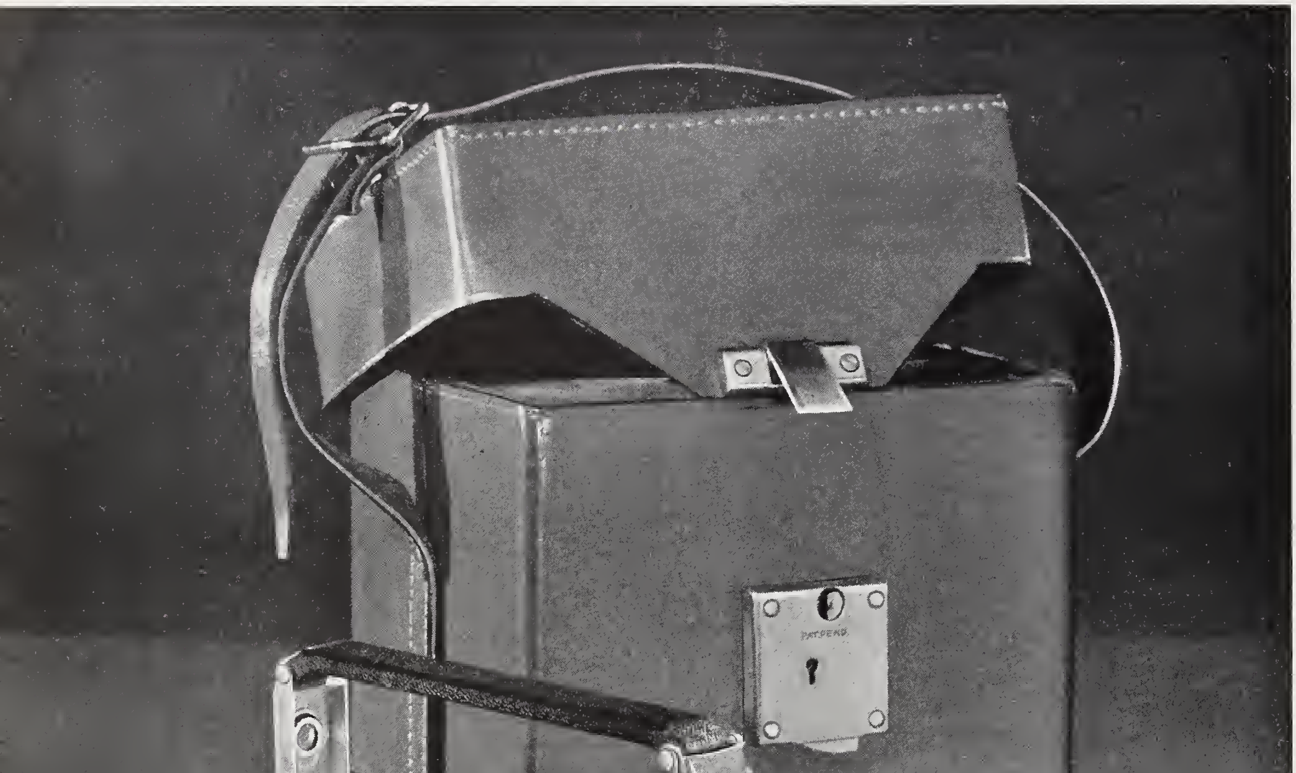
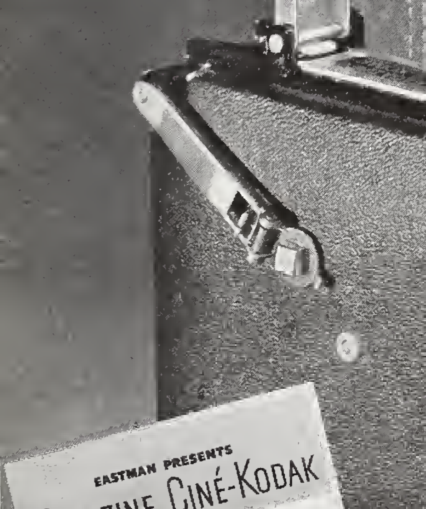
The lighting in an operating room may help in cine work

James Gamble Rogers, architect; © F. S. Lincoln



Just a few OF THE REASONS
MAGAZINE CINÉ-KODAK IS HAILED
EASTMAN'S FINEST HOME MOVIE CAM





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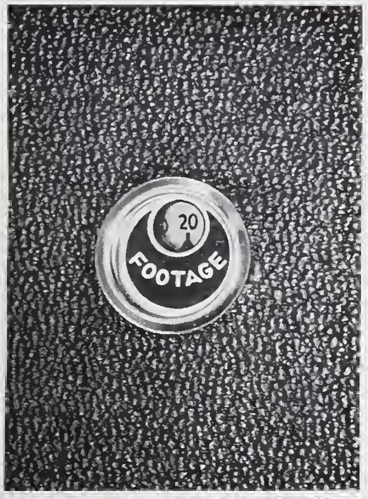

Footage indicators on each magazine register unused film whether the magazines are in or out of the camera. A partly exposed Panchromatic Film magazine may be replaced with a Kodachrome or Super Sensitive "Pan" magazine without wasting a single frame.

A tiny button pulses under your fingertip every 20 frames of film as the camera is operated at 8, 16, or 64 frames per second, enabling you to gauge scene length while your eye remains at the finder.

Lenses are changed by the simplest, most positive method ever devised. Press a button, turn the lens, and off it comes. Substituting a telephoto for the standard lens is every bit as simple.

The full-vision, eye-level view finder system competently serves both standard lens and four telephoto lenses. Here you see the rear element of the front finder being set for the 3-inch telephoto lens.

INÉ-KODAK

Ciné-Kodak Eight Wins Grand Prize in American Cinematographer Amateur Movie Contest

THE January 1936 issue of the *American Cinematographer*, published monthly by the American Society of Cinematographers, 6331 Hollywood Boulevard, Hollywood, California, brings news that Ciné-Kodak Eight has again distinguished itself in their Annual Amateur Movie Contest.

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> *"Last year was considered one of the biggest years; however, the count of both entrants and reels submitted this year more than doubled last year's entries. The prizes were broken down into four classes, Home Movie, Scenario, Documentary, and Photography. There were four prizes with the grand prize going to the best all-round picture."*

Ciné-Kodak Eight, Model 60, Wins Grand Prize

"'Red Cloud Rides Again,' the 8 mm. picture by Dr. Loscher (Los Angeles) which was given first prize, was based on a poem that dealt with the pioneers crossing the desert... The manner in which Dr. Loscher handled this sequence would have done credit to a studio production... His angles, his composition, and his cutting are things for every amateur to observe."

Ciné-Kodak Eight, Model 20, Wins Award for Finest Photography

"Again T. Okamoto (Japan) presented a gem of photography, but close on his heels was R. B. Clardy with 'Fisherman's Harbor.' Clardy was the winner of last year's and a previous year's scenario and grand prize."

Mr. Clardy is also a user of a Ciné-Kodak Eight, Model 20.

From this it is easy to see that, in the hands of the serious movie maker, the modest Eight is able to hold its own in the fastest company.

Incidentally, all these prize-winning movies were made on Ciné-Kodak Eight Film.

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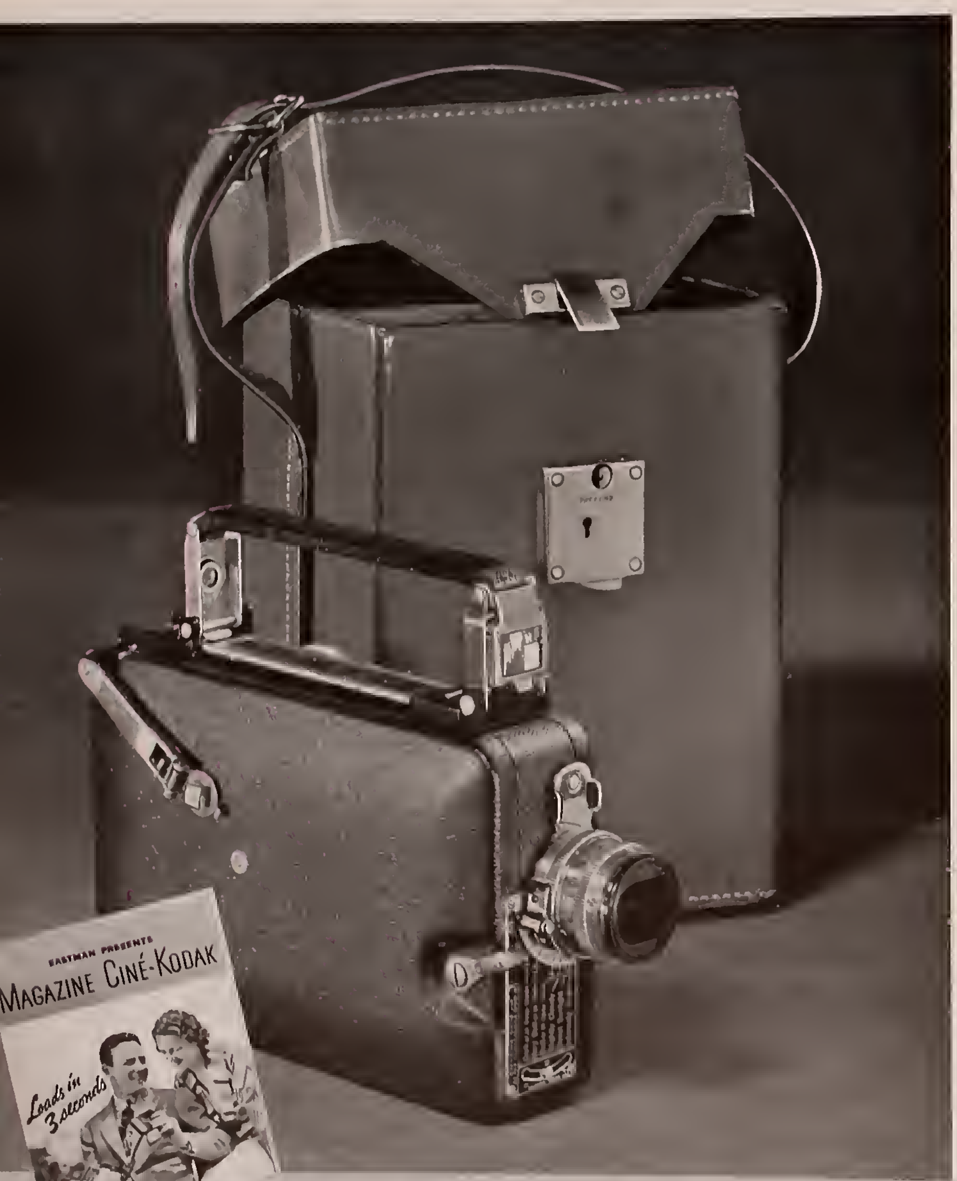
Just a few OF THE REASONS WHY MAGAZINE CINÉ-KODAK IS HAILED AS EASTMAN'S FINEST HOME MOVIE CAMERA



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You load Magazine Ciné-Kodak in three swift motions: ONE—Pull the finger tab to "Open," releasing the hinged cover to disclose a glistening chromium interior.

A tiny button pulses under your fingertip every 20 frames of film as the camera is operated at 8, 16, or 64 frames per second, enabling you to gauge scene length while your eye remains at the finder.

TWO—Slip a film magazine into place. "Label outside and at the front" is the simple formula. There's absolutely nothing inside the camera, nothing on the film magazine, that requires adjustment.

Lenses are changed by the simplest, most positive method ever devised. Press a button, turn the lens, and off it comes. Substituting a telephoto for the standard lens is every bit as simple.

THREE—Close the cover as you would a book, pull the finger tab to "Run," and you're set to go. Unloading is every bit as easy. The "Lock" position for the tab prevents accidental exposure of film.

The full-vision, eye-level view finder system competently serves both standard lens and four telephoto lenses. Here you see the rear element of the front finder being set for the 3-inch telephoto lens.

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EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

The basis of filters

[Continued from page 109]

removal of blue light gives the filter its yellow color. The sharp edge to the curve at about 4600A. is called the "cut" of the filter. As the cut shifts to shorter wave lengths, the filter lets through more blue and has a paler yellow color. If it shifts to longer wave lengths, it becomes a darker yellow. For instance, the "G" filter, which is a deep yellow, has its cut at 5100A. and so absorbs the violet and blue completely. If the filter has its cut at about 6000A., it absorbs all the blue and green and lets through only red light. The further the cut is toward the red end of the spectrum, the deeper is the red color of the filter. The Wratten No. 25 ("A") filter cuts at about 5900A.; the deeper red No. 29 cuts at about 6100A.; the No. 70 filter, which is quite a deep red, cuts at about 6600A.

In addition to these filters, which have sharp cuts at shorter wave lengths below which they absorb all light and above which they transmit, there are many filters by which certain limited regions of the spectrum may be isolated. As examples of these may be mentioned the Wratten Tricolor Blue filter, No. 47, which lets through only blue light between 3800A. and 5100A., and the Wratten No. 61 ("N") which transmits only green light, between 4900A. and 6000A. (Figure 2). There are also filters which do not have sharp cuts in their transmission curves. Characteristic of this class are the pale yellow, so called "orthochromatic" filters, K1 and K1½, which absorb partially but not very fully in the blue, and the pale green X1 and X2 filters which absorb some of the blue and also part of the red.

In the practical use of filters, it is necessary to know what color filter should be selected for a certain purpose. Suppose, for instance, it is desired to cut out some blue light so as to darken the sky; what color filter is necessary? Suppose we wish to lighten the reds or reproduce green somewhat darker than it appears to the eye; what filter shall we select for use with a particular film and lighting? If we desire to cut out all the blue from white light, our filter lets through only green and red and is yellow in color. If we wish to absorb all the green and let through only blue and red, the filter is a magenta color. If all the red is to be absorbed, and blue and green transmitted, the color of the filter is blue green. These transmitted colors are said to be "complementary" to those absorbed by the filter. In the event that it is desired to remove only a narrow part of the spectrum, the color of the filter will be some variant of those named. It is well worth while to get acquainted with these properties of colors, as a knowledge of them is invaluable in photographing colored objects in black and white.

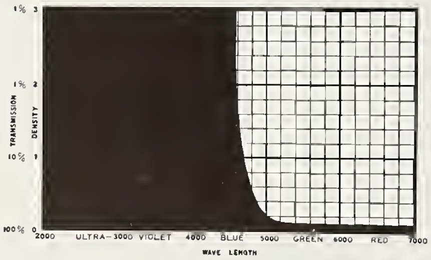


Figure 1

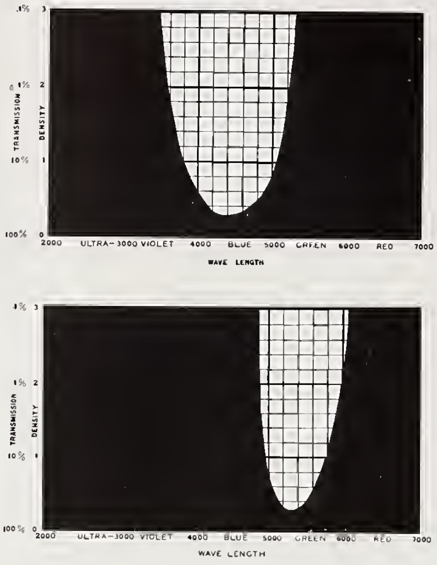
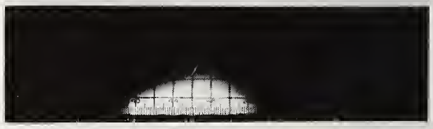


Figure 2

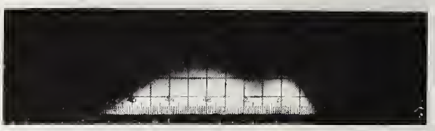
At the beginning, I mentioned that it was important to know the quality of the light used in making a picture. The quality of a source of light is determined by the amounts of light of different wave lengths which go to make up its spectrum. Scientists specify it by the expression, "color temperature." To say that a lamp operates at a color temperature of 2800°K. means that its spectrum resembles that of an ideal source which is actually at that temperature, the designation on *K* referring to centigrade degrees on the scale of temperature which starts at absolute zero (—273°C.). 2800°K. is the same as (2800-273)°C.=2527°C. The hotter a source of light, i.e., the higher its color temperature, the bluer is its light. For instance, the light from a candle, which has the rather low color temperature of about 1900°K., is distinctly yellow, whereas that from a Mazda lamp, which is at about 2800°K., is much bluer, giving the appearance of a whiter light than the candle. The Photoflood lamp is still bluer, having a still higher color temperature, while sunlight has the very high color temperature of 5400°K. on the average for midday in Washington. As the color temperature goes up, so the percentage of blue in the source of light increases, while that of the red decreases. In the Mazda and Photoflood lamps, there is actually more red than blue light. In sunlight, the maximum is in the green.

In the selection of a filter for use with a particular kind of lighting, therefore, this difference in quality must be taken into account. Its effect can be illustrated in making color movies by the Kodachrome process. In this process, the film is made to give good color by sunlight. If the film is exposed indoors without a filter to Photoflood lights, the picture has a dominant yellowish color, because the lamps have relatively less blue and more red light than sunlight. In order to restore the color balance, therefore, it is necessary to use a filter which will give the blue full play and will hold back the green and particularly the red. Such a filter is pale blue in color and is called the Kodachrome Filter for Photoflood. In black and white photography, the same principle must be adopted, a filter being selected to pass or to hold back a color according to the extent of its presence in the lighting.

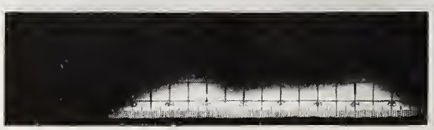
WEDGE SPECTROGRAMS



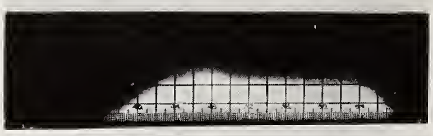
ORDINARY



ORTHO



PAN



S.S. PAN

The difference in color of light sources makes itself evident in the filter factors used with them. The sunlight factors for yellow and red filters, which remove the blue, are higher than the tungsten light factors. The sunlight factor for a blue filter is much less than its tungsten light factor.

The following table shows the approximate color temperatures for a few common sources of light:

Bluer ↓

Light source	*Color temperature*
Candle	1900°K.
Carbon filament lamp	2080
Acetylene lamp	2360
Mazda lamp	2900-3200
Photoflood lamp	3480
White flame arc	5000
Sunlight	5400

↑ Redder

The third factor it is essential to know for the correct use of filters is the region of the spectrum to which the film will respond. Ordinary photographic materials, not specially treated in manufacture, respond only to ultra violet, violet and blue light, and no juggling with lights or filters can make them record green or red. The so called orthochromatic materials are made to respond to green light, as well as to the above mentioned colors. They can, therefore, be used with yellow filters to give predominance to the green and to hold back the blue. Panchromatic materials, on the other hand, are sensitive to all the colors of the spectrum and, therefore, allow complete flexibility in the use of lights and filters.

Various kinds of panchromatic materials are made, because it is possible to vary the relative sensitivities to blue, green and red. For instance, films of the supersensitive panchromatic type have a much higher sensitivity to red light than ordinary panchromatic films. This makes them specially suited for photography indoors by artificial light because, as we have seen, such light has a predominantly red color, and shorter exposures are thus possible. One thing to remember is that all films have a high sensitivity to ultra violet, violet and blue. There is no photographic material which is not actually more sensitive to this region of the spectrum than it is to red light. The fact that some materials may seem much faster in the red than in the blue is due to their being used with sources of light in which there is much more red than blue present. The effect of this is similar to the effect of using a yellow filter to absorb the blue, namely, to give prominence to the red.

In selecting a filter for a particular purpose, therefore, we must first visualize how we want the subject to appear in the photograph—how the tone values of the colors are to be balanced, which colors are to be depressed in tone and which accentuated. We must then know to what colors our film will respond and

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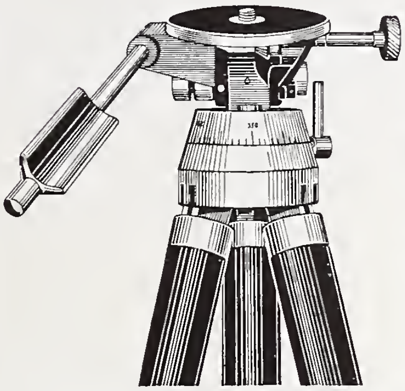

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in what relative amounts. Also we must have some idea as to the distribution of color in the light from the lamps or daylight we shall use. From this combined knowledge we can select the appropriate filter for any purpose. This sounds like a big task, but in practice it becomes relatively simple, for we usually work with one kind of film and one or two kinds of lighting. Moreover, in black and white work, there is very considable latitude.

How sound fits in

[Continued from page 113]

ordinance which forbade costly competition in colors."

Like a good titling job, a good narrative requires a certain amount of research. There is a vast difference between such a statement as, "In Paris, we witnessed a big political demonstration," and, "The militant Royalists, who want the Duc de Guise on the throne of France, were out against a proposed alliance with the Soviets." The narrative that does not add specific new facts to what the spectator can see with his own eyes is a narrative better omitted entirely.

On occasion, you will find transitions so sudden that they tend to defeat oral explanation and leave a bad break in the flow of the film. Here the printed title itself comes to the rescue, a fact which theatrical producers have discovered of late years. Used at the head of major sequences in travelogs and educationals, the printed title is distinctly helpful. Not only can it bridge unpleasant gaps more successfully than narrative, but also a properly placed title may serve a number of other important functions. For one thing, it gives a definite pause or rest in the picture's progess, bringing not only silence but cessation of advancing images, an effect which on occasion is highly to be desired. Again, it supplies a smooth and natural point for the shift from one musical theme to another, a necessity which may often create awkwardness and a seeming ineptitude if met in the body of a sequence.

If a subject is apparently devoid of attractive features on which to hang a comment, one of the favorite tricks of news writers is available to the narrator—*emphasis by denial.* Instead of stating positively — and weakly — that "Thousands of men were demonstrating against the Government," one may say twice as effectively in negative form thus: "Thousands of demonstrators—and hardly a woman among them. We wondered whether American women would keep out of such a scrap, back home."

Other examples of this technique are: "A shady, well kept promenade, the delight of nursemaids, but ne'er a blade of grass" and "A fine army, but no shoes." As most people sense a lack without being able to put their finger on it, the narrator can make excellent use of this principle of negative emphasis.

An excellent trick that has been used repeatedly on the radio, but has not yet found its way even to the theatrical screen, is the twin narrative, carried on largely by the question and answer method. A woman's voice asks questions, which are answered by a man's voice. The two persons thus engaged in narrative dialog may have been introduced in the early part of the film, with a bit of actual, well synchronized conversation. They are brought back into sight one or twice in the course of the reel, to key again the source of their supposed comments.

Here is an example: Scene 12. A hilltop, looking down toward a broad river; imposing buildings in the distance. Man and woman enter left, strolling away from camera (three quarters back view) toward the right. They pause.

WOMAN: *pointing.* "What is that place down there?"

MAN: "That is the Military Academy at West Point."

The rest of the dialog (i.e., narrative in disguise) is heard coming from their lips as the scenes of the Academy are projected, but they themselves are not seen any more in this sequence.

If a rule for the narrator had to be boiled down to a four word guide, this should be, "Speak half of it." No long interval should elapse between observations, of course, but about three seconds may well be allowed between one comment and the next—digestion time for the audience.

Finally, the wording of the spoken comment should not be written to be *read* with the eye, but to be heard through the ear. The mistake of writing an article and then reading it into the microphone is one of the most common and most exasperating faults of radio speakers. Oral delivery requires a style of its own—shorter sentences, a certain amount of repetition (in entirely different words and in elaborated form) and a far more conversational tone, mingled with questions which are promptly answered. For example, it will not do to say: "The Capitol at Albany, commandingly situated at the top of State Street hill, with a small park in front of it, is a huge structure in the French Renaissance style, built in the form of a quadrangle, 300 feet wide and 400 feet deep." That sentence is too long, too involved and too hard to understand instantly. For oral delivery, it might be rewritten as: "The Capitol at Albany forms a quadrangle. 300 feet by 400. The architecture is French Renaissance. It is on top of a hill and commands extensive views."

Nor is that the only editorial change

required. It is also necessary to replace, whenever feasible, every word which begins with an S or an F *sound* (however it may be spelled) by some other word which will register better through the "mike." Thus the words, "situated, State Street, structure," are better left out. Words like "ceaseless, sustained, suspended" will be replaced by others, such as "never ending, continued, hanging." The only way to test out this style ("make sure of being right") is to rehearse every sentence ("read aloud every word") before it is spoken ("before recording"). Needless to say, ("We need not add that") there are frequent occasions on which one has to put up with an undesirable sound, rather than stretch the sense or risk being misunderstood.

There is no formula for dialog writing. Roughly it can be classified as informative ("Miss Mary has gone!"); or progressively emotional ("Is that what you tell all the girls?"); or climactic (the showdown, running through the whole gamut of emotions). The last is built up from the common level of dislike or misunderstanding to a conflict of wills, which is the end and purpose of the drama. Purposeful dialog rises step by step, each statement or question advancing both the characterization and the action toward the climax. It excludes all irrelevancies, all "wisecracks," all narrative of descriptive material—everything that is not strictly revelatory of character.

Whatever form of synchronization is used, every sound must justify itself. Padding is no more to be tolerated in the one medium than in the other. A striking opening, a steady upward progression and dramatic or humorous climax will always remain the formula for a good show.

Tricks without traps

[Continued from page 111]

an auto accident. The car is to appear to run into a person and knock him down. Have the subject bump against the car and then fall down. Now invert the camera and film the auto backing away from the spot. Join the scenes, and the car will seem to rush into the scene and hit the victim. Rehearse it a few times to get the action just right. If possible, avoid having people in the background because they will be walking backward.

Mirror work is a further device to keep in mind: it is more interesting, even though more complicated. It is all based on the optical law that the angle of reflection is equal to the angle of incident. It may be translated into "set your camera at the same angle as the actors, but on the opposite side."

If you shoot straight into the glass, you get a fine picture of yourself and the camera. But, if you shoot the glass at an angle of thirty degrees to an imaginary right angle, and place your actors at a similar angle opposite, you will get a picture of the action and not of yourself. Imagine a line drawn from the center of the mirror, exactly at a right angle, and figure your distances from this imaginary line. Now, if you work some of your cast twenty feet from the mirror and others thirty feet away, you can get the more distant figures in diminished size. It takes a little experimenting to get this just right, and the result is not always satisfactory. However, undisguised mirror shots offer many opportunities for dramatic films. Have the mirror exactly upright and be sure it is clear glass.

Quite a lot of trick stuff can be done with threads. For example, the cheese walks about the table under its own power. Two threads, long enough to be worked outside the camera lines, will turn the trick. Black thread against a dark ground can be used to cause a coffee pot to pour its contents into a cup without visible aid. Use cotton thread. Silk is stronger but too glossy and likely to halate.

There is no limit to the scope of simple trick work. Use your imagination to build upon these suggestions. I recall one half reel picture we made over at Lubin's a lot of years ago. A derby hat, walking down the street, had an entire community excited until somebody lifted the hat and disclosed a kitten. Until that last scene, a thread was the motive power for the hat.

A lot of people laughed at the short.

Now see what you can do.

Showing the surgeon at work

[Continued from page 117]

pensation for this inconvenience is the assured sharpness of the image obtained by this method.

Place the lights on both sides of the operating table and, on one side, station the unit close enough to the field to relieve flatness. At the same time, place the lights high enough so that the shadows, which will be cast by the surgeon's hands, will be, for the most part, in a direct line with the lens and consequently less noticeable from the camera position. Finally, take a reading with the exposure meter and set the lens diaphragm accordingly.

While the majority of medical pictures will be made at a speed of sixteen frames a second, situations will arise when it is expedient to slow down the action of the surgeon so that proper emphasis may be given to the more delicate portions of his procedure, thus portraying his technique more clearly. Under such circumstances, adjust the speed of the camera to operate at thirty two, forty eight or even sixty four

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frames a second, according to the effect desired. In doing this, it is to be remembered that the lens diaphragm opening must be increased one stop with every increase in the camera speed.

With the completion of these arrangements, the actual work of photographing the operation begins. For a first attempt, it may be well to photograph only the major steps of the work. By doing this, the movie maker will find ample time between each scene to rewind the camera, the spring of which should be kept to its fullest tension as much as possible. While the length of action to be photographed varies, it usually runs from two to fifteen feet, the average maximum footage being less than one half the range of the spring driven 16mm. camera. Should an exceptional scene outrun the spring's capacity, the surgeon may be able to give the cameraman a few seconds respite for rewinding the spring.

After making a few pictures and studying the results from a photographic point of view, the doctor can rearrange his equipment to suit his individual needs and can standardize the new arrangement so that no time is lost in setting up for an operation. Such a standardization will likewise assure uniformly good pictures in general operating room procedure.

The clinic

[Continued from page 115]

layer, but it is important to be sure that a clean cut edge is made where the emulsion is scraped off. Do not use too much water, as this will soften the emulsion and make it come off with a frilled edge.

Humidification ■ More films seem to suffer from too much water than from too little. The amateur has been warned so often not to let his films dry out that sometimes he has gone to the other extreme. Under average conditions, film stored in humidor cans need not be touched more than two or three times a year. The blotter pad then should be moistened with water or one of the fluids made for the purpose. It is especially important to avoid humidifying Kodachrome to excess, as it causes one coil to stick to the other, with possible damage to the film. It must be remembered that the emulsion is softened when it comes in contact with water and, in this state, serious damage will result if anything touches the film. If the film is allowed to dry in contact with anything, it will stick tightly enough to remove flakes of the emulsion.

Negative positive ■ On occasion, users of positive and negative 16mm. film are inclined to criticize reversal film on the basis of cost, alleging that positive and negative is cheaper. Actually, however, orthochromatic or panchromatic reversal film, carrying with it the right of processing free of charge, is cheaper than positive and negative unless a considerable number of prints are to be made and the original cost can be pro rated among them. If but one or two copies of the film are needed, as in average amateur work, reversal film is decidedly cheaper. This is true even if one does developing and printing at home, for the overhead cost of developing equipment, racks, tanks, chemicals and printers must be considered.

Slow motion ■ Some people believe that the slow motion effect is gained by changing the speed of the projector. This is not the case, because retarding the projector produces a bad flicker and actually slows the motion down very little. Slow motion must be taken with a high camera speed and should be projected at the normal projection speed. A camera speed of thirty two frames a second,

Here is another table for a cine note book or card file

FOR THE EIGHT-MM. CAMERA:
DEPTH OF FIELD TABLE FOR THE 1½"-*f*.4.5 TELEPHOTO LENS.

DISTANCE FOCUSED UPON	RANGE OF SHARPNESS											
	*f*4.5		*f*5.6		*f*8		*f*11		*f*16		*f*22	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	83'-0"	INF.	67'-0"	INF.	47'-0"	INF.	34'-0"	INF.	23'-0"	INF.	17'-0"	INF.
50	31'-0"	126'-0"	29'-0"	197'-0"	24'-0"	INF.	20'-0"	INF.	16'-0"	INF.	13'-0"	INF.
25	19'-0"	36'-0"	18'-0"	40'-0"	16'-0"	54'-0"	14'-0"	94'-0"	12'-0"	INF.	10'-0"	INF.
15	12'-8"	18'-4"	12'-3"	19'-4"	11'-5"	22'-0"	10'-5"	26'-10"	9'-2"	42'-0"	8'-0"	127'-0"
12	10'-6"	14'-1"	10'-2"	14'-7"	9'-7"	16'-2"	8'-10"	18'-6"	7'-11"	24'-7"	7'-0"	40'-10"
10	8'-11"	11'-4"	8'-8"	11'-9"	8'-3"	12'-8"	7'-9"	14'-2"	7'-0"	17'-6"	6'-4"	24'-4"
8	7'-4"	8'-10"	7'-2"	9'-1"	6'-10"	9'-8"	6'-6"	10'-5"	6'-0"	12'-2"	5'-5"	15'-2"
6	5'-7"	6'-6"	5'-6"	6'-7"	5'-4"	6'-10"	5'-2"	7'-3"	4'-9"	8'-11"	4'-5"	9'-3"

which will make the action half as fast as normal on the screen, cuts the exposure in half, thus calling for a stop increase in the diaphragm opening. Sixty four frames a second is the usual rate for slow motion and it is four times normal speed, calling for two stops increase in exposure. On the contrary, a speed of eight frames doubles the rate of motion on the screen and requires that the lens be closed down one stop because of the increased exposure.

Variable area closeups ■ There are times when the owners of the small metal titlers wish to film areas slightly larger than the titler easel will allow. In such cases, the solution is to use the camera without the titler but with the proper portrait attachment. Most of the camera manufacturers can supply various focal length attachments, by means of which objects at almost any distance can be filmed. Titlers are made for use at one distance and one size of camera field only and cannot be altered easily. If the problem is simply to film a motion picture record of pictures of various sizes or of titles lettered on pictures, it is cheaper and easier to send the job to a firm offering a cine copying service. Such work is inexpensive, the results are excellent and handling the job in this way will save a great deal of time and trouble on the part of the amateur.

A new League scenario bulletin

Scenarios ready to film, by James W. Moore, ACL, a new bulletin issued by the Continuity Department of the Amateur Cinema League, is now available. It presents in complete scenario form four stories ready for production: *Main Street, Jr.*, a simple farce designed to include your youngsters and the neighbors'; *Kids Will Be Kids*, a situation comedy for children and their parents against a home background; *The Hero*, a drama of romantic action, for young people, movie clubs or assorted enthusiasts; *The Boss and the Burglars*, a mystery story with a happy ending, specifically designed for filming at an informal evening party. With these are presented definitions of scenario terms to guide the novitiate in planned dramatic filming.

Scenarios ready to film has been sent automatically to all members who have asked to be carded for the League booklets and bulletins. If your name has not been listed, a simple request by post card, telephone or letter will bring your copy at once. It is available only to League members (to them without charge, as a part of membership service) and will not be offered for sale.

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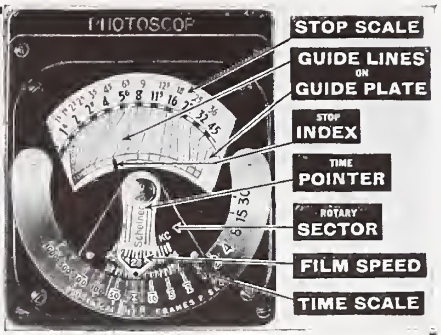

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Closeups—What filmers are doing

For a long time, Neil Horne, ACL, hadn't shown us anything new in his outstanding collection of scenes of famous people, but when he did the other day he made up for lost time. Mr. Horne's recent triumph is a one hundred foot reel of Joe Louis, the negro fighter, taken at the training camp near Pompton, N. J. Beside picturing the Brown Bomber in specially posed scenes of shadow boxing and work on the heavy bag, the reel presents amazing portrait sequences of Jack Johnson, One Eyed Connolly and trainer Blackburn, of the Louis entourage. Don't ask us how he got them! When we ask Mr. Horne, he simply smiles modestly.

A frame from "Peggy's Cove," by Edward A. Bollinger, ACL

You probably have heard before that the League, through its membership, reaches out into fifty six countries of the world, but unless you are right here at headquarters you can't guess what this means on occasion. One morning a few months ago, for instance, we strolled into the office thinking, if anything, that today probably would be just like the day before. It wasn't at all. "Sydney," announced the switchboard operator, "is calling." We tried to remember who Sydney might be, but couldn't and got set for a new joke. It was no joke, however, as we soon found out when the overseas operator rang to ask if we were ready to talk to Australia. We figured we were about as ready as we ever would be, so we went ahead and talked, for seven and one half minutes, and mostly a lot of "Hello's," "How are you's," and "Can you hear me all right?" It was simply James A. Sherlock, ACL, who had a few questions he wanted to ask about a film he had sent us—and we could hear him perfectly after we got over the first shock.

After that experience (at Mr. Sherlock's expense), we began to take international affairs right in our stride. Getting off a cable to Yokohama, to a cable address we weren't sure of, seemed just as simple as wiring home for money used to be in college. When the answer came back from Japan, bearing a time and date of sending which hadn't even happened yet in New York, we quickly mentioned something about the International Date Line and pretended we knew all about getting messages hours before the time they seemed to have been sent. Even cabling felicitations to His Grace, The Duke of Sutherland, at a banquet in London, didn't faze us, though we were a bit shocked when the monthly cable statement came in with this item listed tersely, "Duke." So far, the only thing we've balked at in international affairs was the request of a new League member in the Philippines. It was just before the first flight of the China Clipper when his letter arrived, asking us to send on his Movie Makers, issues of all the bulletins and his copy of *Making Better Movies*, all by airmail! We looked up the rates and found that the package would run just a bit over thirty two dollars. It went by steamer.

Carleton Dyer, ACL, of Hendon, England, has an editing idea that sounds good to us. It seems that he has a friend who is very keen on filming, just as is Mr. Dyer, and that they get together on problems of cutting and editing. But when they get together, the friend takes over Mr. Dyer's films and he takes over the friend's—and each does the inevitable dirty work with scissors and waste basket for the other. "In this way," wrote Mr. Dyer, "all those precious, personal and tiresome shots which might be retained through moments of sentimental weakness are cut out."

George Cushman, ACL

Des Moines Y. M. C. A. Movie and Camera Club taking a scene

Quite a while back, we told you about the intended production of Héloise and Abélard, which had been undertaken by Alan S. Moorhouse, ACL, of Toronto, Canada, with Mrs. Moorhouse playing the rôle of tragic Héloise. Considerable film has passed through the camera since then, and it has been our recent good fortune to see the first completed episode. Called, romantically, *They Passed This Way*, it is the part which depicts the young and happy lovers while they still were in pastoral Brittany.

A color portrait party

[Continued from page 110]

behind and below the subject.

At this point, an inevitable question came from one of the guests who owned a movie camera.

"Of course, with four lights you can use a smaller stop than *f*/1.9, can't you?"

"No, I'm going to use *f*/1.9 for all our work tonight, and here is the reason why. There are only two lights on the subject that will affect the exposure. The backlight and the light on the screen have nothing to do with it. A common mistake in shooting Kodachrome is to count the various 'effect' lights in computing exposure. They have nothing to do with exposure unless they fall directly on the subject."

"But isn't that lighting arrangement going to give you a very flat picture?" queried a still camera fan.

I shook my head and said, "In the first place, we are using color, which requires flat lighting for the most part, since the modeling is taken care of by color rather than by shadow. In the second place, we are using a very light overall tone or, in other words, we are taking the picture in a high key lighting. Plenty of even light is what we need."

Our next subject was quite a contrast with her blue black hair and dark eyes. Even my poor artistic ability seemed to cry out "red" and red it was, with the velvet evening wrap supplying it. We kept the white background, but this time we did not use the extra light on it. This gave a rather neutral gray effect.

Minor changes in the position of the lights were indicated, because of the features of the new subject, but for the most part the setup was pretty much the same. The spotlight was brought around to the front and the subject looked fairly straight into it. This particular lady had most attractive hands and, in order to make use of them and to get suitable motion in the picture, I had her light a cigarette taken from her silver case. The spotlight accentuated the smoke as it curled upward.

Not very many people can smile to order, but one of our ladies could and would. She had very light hair, and I at once visualized the black velvet and a dark background. My black focusing cloth was pinned up in place of the screen behind the subject and our black velvet was draped about her shoulders in a deep V. I brought the spot quite close to the camera and had her look directly at it. It was a head on shot and gave an interesting triangle effect. Nothing could be seen of the background or of the rest of her body. Just the light hair and the face, with a deep V neckline, were pictured. Her action was to smile slowly and then really break into a "million dollar" smile,

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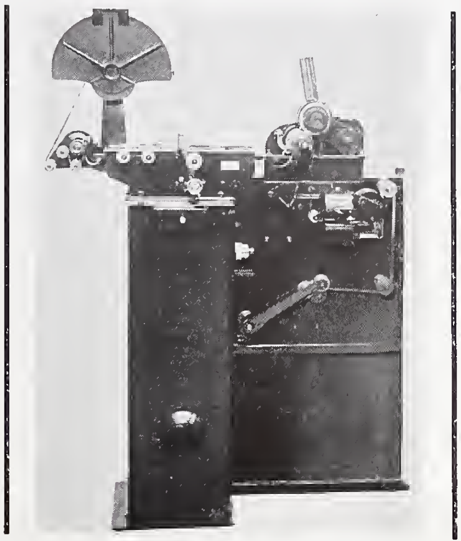

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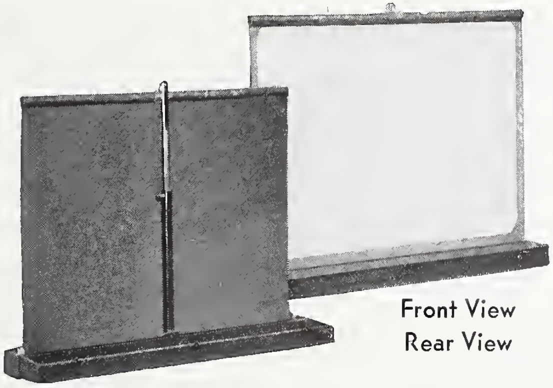

Front View
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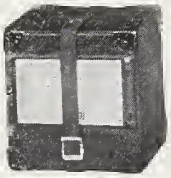

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which was most attractive because of her very lovely teeth. That was action enough in her case, although it couldn't often be used on the average subject.

By this time, the men in the party were getting a bit interested, and we had to consider them. I excused myself on the grounds that I was the movie maker of the session and therefore needed behind the camera. One chap, whose rugged features had made many a campus heart flutter in his not too distant football days, was a natural subject for a pipe. A new one of mine was pressed into service and, while he may not have liked my tobacco, he made a fine pretense of enjoying it. This time, I brought the lights back a bit because we didn't have the delicate flesh tones to bring out and the dark evening clothes were not to be featured as had been the women's apparel. We used the windows with curtains for the background and were most careful to prevent the lights from appearing as reflections in the window glass. The lighting was pretty even, and we did not use either the spot or the extra backlight.

By this time, the ingenuity of the subjects was working, and several good ideas for action and poses were suggested. The various backgrounds and shawls came in handy, not to mention the attractive gowns. We were quite convinced that there was material here that Hollywood might well investigate.

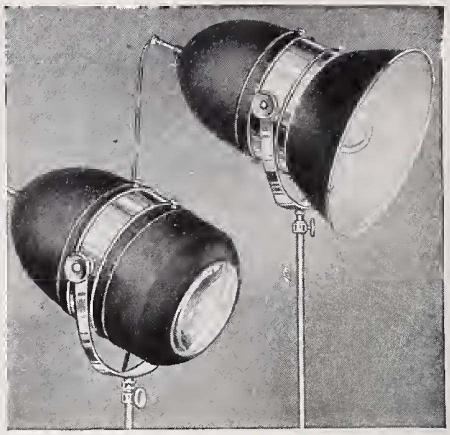
We had a delightful evening, but the best part of our cine portrait party was the hilarious projection party two weeks later.

Try these in Bermuda

[Continued from page 108]

winding road for a scene to include the carriage as it rattled along under the trees and, when we reached the sea, I know that I should want a sequence in color of the undulating variations of sea green which play about the submerged reefs. No coastline was ever more in harmony with the personality of an island than the one which encircles Bermuda. This material is charming too in black and white and, if I were working in 8mm., with consequent film economy, I would be tempted to make an independent picture of the coastline and the surf. This, however, would be separate from the principal opus.

If my visit is during Easter when the lilies are in bloom, I would want to stop here and there along the way to photograph them, especially a few closeups portraying the delicate graduations of hue. But I would remind myself that, unless some people are in the longer shots, or there is a great deal of wind movement among the flowers, these scenes will be somewhat flat.



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St. George, being one of the sleepiest towns in the world, is a difficult subject to photograph. I don't think I would use a great deal of film there, although some of the compositions along the waterfront—with their variations of shade from green cedar in the foreground to white houses and sky in the distance — are pleasing subjects for color.

On my way back to Hamilton, I would visit the Government Aquarium and make an attempt with my $f/1.9$ lens to get some scenes of the fishes in color. With superspeed panchromatic, this would be easier to attempt, and I would not miss this in black and white, if the color was not practical. There, too, I would make a sequence of somebody descending to the coral gardens in a diving helmet—although I would conscientiously remind myself that Bermuda's real charm lies not in such pursuits and that this was more in the nature of an accent to the inherent simplicity of the place.

Exploring lagoons in glass bottomed boats, fishing on the Gulf Stream, diving in helmets, these are items of human interest against the islands' background. But there remains, dim perhaps and indistinct, yet nevertheless remaining, a memory of quiet carriages moving through the patterned shadows of a cedar grove and the wash of sea waves on pink coral sand.

News of the industry

[Continued from page 112]

a French production of a very high order which has already attracted much praise from critics. The 16mm. version is identical with the 35mm. and has superimposed English titles. This is one of the Blue List of outstanding 16mm. sound films available from Garrison Film Distributors, Inc., 729 Seventh Avenue, New York, N. Y.

Theft ■ There has been stolen, from Bass Camera Company, 179 West Madison Street, Chicago, one Bell & Howell 8mm. projector No. 171046, without case. The instrument has a brown finish. A reward of ten dollars is offered for return within six months.

Amateur clubs

[Continued from page 114]

screening of members' films of Christmas, as submitted by Harry Rich Mooney, ACL, Clifford F. Potts, ACL, and Messrs. Wolf and Hubbard.

Montreal première ■ More than four hundred persons attended the late premier screening of *Copper and Gold*, recently completed Montreal Amateur

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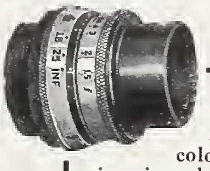

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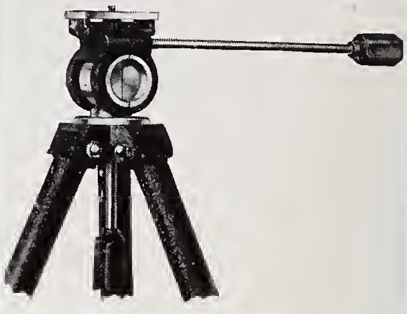
Movie Club production, which was held with unusual success at the Windsor Hotel, in Montreal. Local papers covered the screening with regular reviews, in which much favorable comment was expressed regarding this feature film. More recently, the Montreal group has held its annual general meeting and announces the election of new officers, as follows: Harold D. Marwood, president; Murray Smith, first vicepresident; Russell Graul, second vicepresident; Cecil DeBretigny, treasurer; Mrs. E. Burgess, recording secretary. A number of interesting programs already are planned for the new year, as well as a new club production. Meetings are held on the second Monday of each month, in the Windsor Hotel, and are open to amateurs interested in the club's activities.

Ten Best at Hartford ■ Unusual interest and a spirit of friendly criticism were the marked reactions of members of the Hartford Cinema Club at a recent meeting devoted to a screening of selected Ten Best award winning films, according to the report of Edmund Zacher, II, ACL, publicity secretary. *Ultima Thule* and *Peggy's Cove*, by Edward A. Bollinger, ACL, and Mrs. Bollinger, and *In the Beginning*, by Fred C. Ells, ACL, were supplied from the League's Club Film Library, while *A Christmas at Home*, a color study by Mr. Zacher, rounded out the program. With understandable devotion to the native product and a keen delight in its manifest virtues, the Hartford members expressed a general feeling that *A Christmas at Home* was the most enjoyable film screened on the program. Sympathetic and intelligent news accounts of the meeting and the pictures presented were accorded the Hartford club in the local press.

In Berkeley ■ Dr. K. E. Palmer, ACL, will serve the Berkeley Amateur Motion Picture Club as president during the coming year, according to the last dispatch of Ben Dawson, retiring secretary. The other new incumbents are J. L. Corbett, ACL, vicepresident, and E. J. Touraine, secretary treasurer. The club continues to meet monthly for screenings of members' films and the discussion of filming problems.

Winners in Eight ■ *Red Cloud Rides Again* was the striking title of the first award winner in the annual members' film contest recently concluded by the Los Angeles 8mm. Club, as the feature of its banquet meeting which terminates each calendar year of activity. The picture was produced by Dr. F. R. Loscher. Other place winners, in order, were: *Conscience*, by Claude W. A. Cadarette;

Modernize your Tripod—



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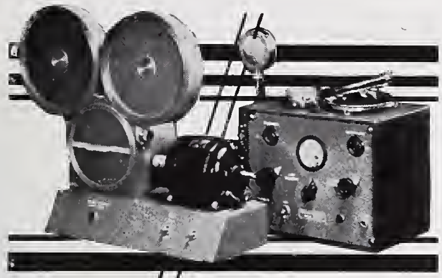

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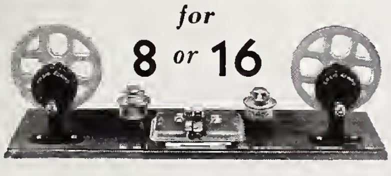

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Fisherman's Wharf, by Randolph B. Clardy; *Cookies*, by Earl Janda. There were fifteen entries from thirty seven members, and competition was reported to be keen and of a high order. New officers for this active 8mm. group who have recently taken charge of their respective duties are: Dr. Henry A. Linek, president: Mr. Janda, vicepresident; Barnes G. Ward, secretary; Arthur Svenson, social chairman.

British amateurs

I.A.C. ends ■ The Institute of Amateur Cinematographers, most recent of the British efforts toward establishing an enduring national organization of personal filmers, has been incorporated into a new organization, the British Institute of Cinematography. Reporting on this new enterprise, *Amateur Cine World*, one of the publications of the commercial Link House Publications, Ltd., of London, quotes a memorandum of the former I.A.C. as saying that "to the B.I.C. itself will come those opportunities which in the past the activities of the I.A.C. have unearthed, of continuing work beyond the strict confines of amateur endeavor. And because the interests of amateurs and the professional cinema are so much alike, both will benefit from the good that will result. . . . The B.I.C. will fulfill the functions of a 'learned society' for both amateur and professional interests in Cinematography—an Academy of Cinematic Arts and Sciences."

If British movie amateurs should be inclined to disagree with the thesis that the interests of personal filmers and theatrical producers are "so much alike," and if they feel any discouragement that another British effort to bring about a national service body for British amateurs has been deflected into channels concerning which they may have some doubts, they will, in all likelihood, be glad to remember that the Amateur Cinema League, an international organization which has served and which continues to serve so many members in the far flung British Empire, is still "doing business at the old stand."

Termination ■ The Extraordinary Membership of the late Institute of Amateur Cinematographers (of Great Britain) in the Amateur Cinema League has been terminated.

On the screen ■ At Newcastle-on-Tyne, the recent meetings of the Newcastle and District A. C. A. have featured the presentation of the following films among others: *Under Sunny Skies* and *Northern Jubilee*, by T. Temple; *B, Week End* and *Kentish Idyll*, by the Brondesbury Cine Society; *Motor Cruising on the Broads*

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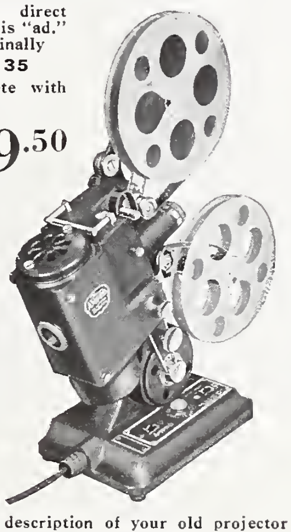

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and *With T. S. S. Vandyck to Norway*, by G. Lough; *Round and About*, by L. Bonser. The club has accepted with regret the recent resignation of its veteran hon. secretary, H. Wood, ACL, who has been succeeded by A. S. O. Millard.

Practical films

[Continued from page 116]

Post Office, has met with extraordinary success. It has been screened for many local organizations of post office employees and civic groups in many parts of the country. So far as is known, this is the first complete motion picture study of the transmission of the mails that ever has been made.

Hiram Percy Maxim

[Continued from page 107]

ford Amateur Movie Club and he remained President of that organization until his death. However, Mr. Maxim's contact with the motion picture art antedated the 16mm. motion picture camera. Years ago, he wrote the story and script of a theatrical movie which Fox produced under the title, *The Virgin Paradise*, with Pearl White as the star. Speaking of the film, Mr. Maxim said, "I disclaim all responsibilities for the title of the picture but the film really was a big success—played a week at the Capitol on Broadway and ran for a couple of years. It started out to be an example of the tremendous amount one must learn in order to keep one's place in modern civilization. A young woman of the best ancestry grows up in savagery and has to learn everything."

In his quiet and unassuming manner, Mr. Maxim achieved great distinction in amateur motion pictures. His film, *The Sea*, was one of the first carefully planned artistic efforts to be produced on 16mm. film, purely for personal satisfaction. He built up a large library of hundreds of films — New England scenics, personal and family reels and travel studies. His greatest pleasure in movie making was to record natural beauty in motion pictures. Early he determined that motion and cinematic qualities were the paramount considerations in his chosen medium of self expression and he was one of the earliest amateurs to base his scenic filming on the art of the cinema rather than on still photography.

At the announcement of Kodacolor film in 1928, Mr. Maxim was the guest of George Eastman, along with Thomas A. Edison, Adolph S. Ochs, General John J. Pershing, General James G. Harbord and Ogden Reid. The League's President was one of the first, if not the first, practicing amateur movie makers to make color movies with the new process.

In an interview in 1928, Mr. Maxim said, "The desire to take my own motion pictures goes back into remote antiquity. I waited a lifetime—nearly—for George Eastman to develop a film that would be within the financial reach of the amateur. And when he announced the 16mm. reversal film and a camera and a projector to go with it, I bit—taking bait, hook, sinker, line and most of the rod.

"Bell & Howell also nicked me immediately thereafter. Then all of the trick screen builders lured me on and the accessory people followed them. I was hard hit, all right, and today I am keeping the processing plants working day and night making film and processing it for me! *The Cotter's Saturday Night* is a joke compared to my nights. I'm cutting and splicing and making a mess of our library every night, until Mrs. Maxim has given up remonstrating.

"I am most interested in working out pictures that depict the drama of natural things—the stupendous power of nature and the struggle of intelligence to battle successfully against it; the sea and the struggles of physically weak but mentally powerful man in overcoming its fury; winter, with its death dealing cold and mysterious silence, deep snows and invigorating hardships. I like to depict the struggle of man and beast against nature."

Mr. Maxim was devoted to the interests of the Amateur Cinema League and tireless in his efforts in behalf of the organization. His wise and cautious policies helped very greatly in guiding the League from its small beginning at a luncheon in New York City to its present standing as an international service bureau, the acknowledged leading organization in the world of amateur and non theatrical filming. Mr. Maxim saw the philosophical and social implications behind the art of individual movie making, and his early thought guided the League into its present broad channels of service. In an editorial in the first number of MOVIE MAKERS, December, 1926, Mr. Maxim wrote, "Our civilization offers us, today, only the spoken or the written word as a means of communicating with each other. This word may be spoken to those within the sound of our voice, telephoned over a hired wire, mailed in a letter or telegraphed in dots and dashes. But no matter how transmitted, it is still the spoken or written word. We are dumb as far as communicating such things as movement, action, grace, beauty and all that depends upon these things.

"The motion picture communicates all of these. We are able to transmit what our eyes see, and it is the next thing to being actually present ourselves.

"And so, instead of amateur cinematography being merely a means of individual amusement, we have in it a means of communicating a new form of knowledge to our fellow beings—be where they may on earth's surface."

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Later, Mr. Maxim wrote, "Our Amateur Cinema League, by systematically organizing cinematography, can hasten the day when all the wonderful possibilities of the motion picture can be made available to mankind. The professional screen can never do it. Its workers have that awful spectre, the Box Office, chained around their necks. We amateurs do not have to consider the box office. We are free to do anything—everything that brains, money and enthusiasm can produce—and these three things can turn the world upside down."

The growth and development of the amateur motion picture movement delighted Mr. Maxim. In the decade during which he presided over the Amateur Cinema League, he saw panchromatic film, then color and finally sound come to the amateur screen. In 1928, he said, "There will come a time when we shall have made so many things possible that cinematography will touch, exert, influence and have a place in every important human activity. If the past is an indication of the future, it can be nothing less." Mr. Maxim lived to see his prophecy come almost entirely true.

In accordance with his keen interest in the progress of movie making and its tools, the League's founder tried out every important new cine facility immediately after it was introduced. He was in continuous touch with the newest and most advanced cinematic technique, but he never specialized in any of the attractive fields that might have claimed his exclusive attention. He filmed the things and projected the pictures that would have interested the great majority of the League's members. Therefore, he never lost touch with the beginner and the average movie maker. In fact, he was more interested in their problems than he was in those of the experienced practitioner.

Mr. Maxim was keenly interested in the sport of cine competitions and he took an active part in the first interclub contest ever to be held in the world. He carried off one of the prizes with his film, *The Sea*. He was a judge in the Photoplay Magazine Amateur Movie Contest in 1928, the first national cine competition ever to be held. Subsequently, he was a judge in many club and sectional cine contests.

The successful progress of the amature movie club movement was very dear to Mr. Maxim. Not only was he President of the Hartford Club, but he also was the chief speaker at the organization meeting of the Metropolitan Motion Picture Club in New York City and at many club meetings in New England. Always socially minded, Mr. Maxim saw clearly the benefits of organization and the interchange of ideas on either an international or local basis. He once wrote, "It is interesting to contemplate what the situation in amateur cinematog-

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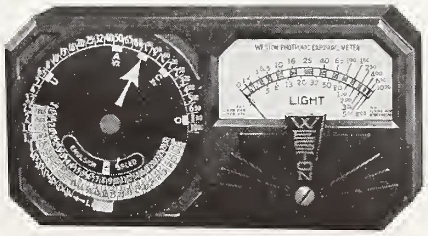

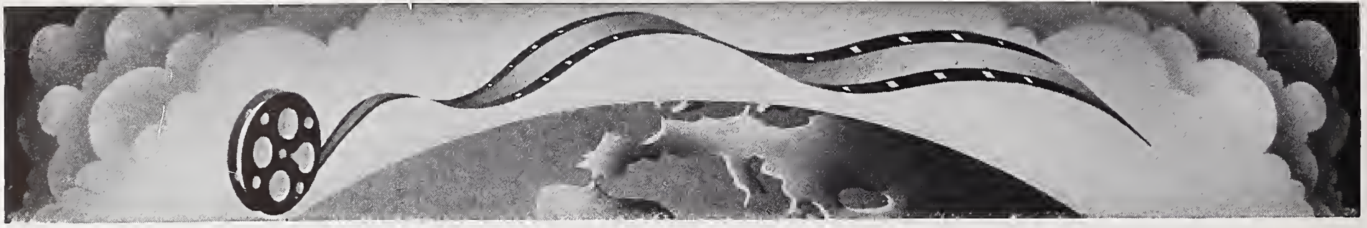

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Glendale: Glendale Camera & Gift Shop, 205 S. Brand Blvd.
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Hollywood: Bell & Howell Co., 716 N. La Brea Ave.
Camera Mart, 1652 N. Cahuenga Blvd.
Hollywood Camera Exchange, Ltd., 1600 N. Cahuenga Blvd.
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Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
PATHESCOPE CO., OF THE N. E., INC., 438 Stuart St., cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
Cambridge: E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
Lowell: Donaldson's, 75 Merrimack St.
Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
Pittsfield: E. J. Curtis, Inc., 397 North St.
Salem: Pitman Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Tewksbury: Camera Exchange, 23 North St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: American Motion Picture Co., 2nd Floor, Charlevoix Bldg.
Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Camera Shop, Inc., 56 Monroe Ave.
Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

(Continued on page 136)

raphy would have been today had we all gone it alone rather than joined together. This world would have been just a little bit less enjoyable a place in which to live. A distinct advance in cinematic art would probably have not come to pass."

But perhaps the possibility of amateur movie making that most thrilled Mr. Maxim was the opportunity for self expression that it offers the average individual citizen. In one of his later editorials, he wrote, "Thus, we amateur cinematographers see ourselves as a growing band of artisans who have been furnished with a new and wonderful tool with unplumbed possibilities. As yet, we only dimly sense these, as we grope about in darkness of these early years, but we are deeply impressed by the potential possibilities of this new thing which can see, record and repeat what no words can, no matter how exquisitely chosen, what no printed page can, no matter how perfectly prepared, what no painting can, no matter how inspired and what no sculpture can, no matter how artistically executed.

"Can we be blamed for being thrilled over working out the destiny of amateur cinematography?"

In losing Mr. Maxim, the Amateur Cinema League has lost its founder, its first President and its greatest counselor. The directors of the League, the membership, the headquarters staff and a host of movie makers who had met him have lost a personal friend whose humor and charm made him beloved as a man as he was respected as a scientist. The movie and radio amateurs of the world have lost a great leader, a generous, kindly and faithful friend.

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● Cine-Kodak 8 with *f*/3.5 lens	$17.50
● Keystone 8 with *f*/2.7 lens	27.50
● Zeiss Kinamo, 16mm. with *f*/2.7 Tessar, Case	20.00
● Simplex with Wollensak *f*/3.5	45.00
● Simplex with Kodak *f*/1.9, Optical Finder	75.00
● Cine-Kodak K with *f*/1.9 lens. Case	80.00
● Filmo 70A with Cooke *f*/3.5 lens and case	30.00
● Filmo 70D with Cooke *f*/3.5 lens and case	95.00
● Filmo 70DA with Cooke *f*/1.8 lens and B. Case	135.00
● Victor, Model 5, with ¾" Kino-Plasmat *f*/1.5 and carrying case	110.00
● 750 watt Ampro Projector with case	120.00
● Filmo 70B (Superspeed) with *f*/3.5 Kodak lens and case	50.00
● Cine-Kodak BB with *f*/1.9 K.A. lens case	45.00

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New League officers

IN CONFORMITY with the by laws of Amateur Cinema League, Inc., the Executive Committee of the League met February 18, 1936, following the death of the President, Hiram Percy Maxim, ACL. Following the provisions of the League's by laws, Stephen F. Voorhees, ACL, vice president of the League, was elected President, succeeding Mr. Maxim, to serve until the annual League meeting in May, 1937. Lee F. Hanmer, ACL, a member of the League's Executive Committee, was elected as vice president, succeeding Mr. Voorhees, to serve until the 1937 annual meeting. C. R. Dooley, ACL, a director of the League, was appointed a member of the Executive Committee to serve until the next annual meeting in May of this year. John V. Hansen, ACL, of Washington, D. C., was elected a director of the League, to serve until the next annual meeting in May, 1936.

Roy D. Chapin is dead

ROY D. CHAPIN, life member of the Amateur Cinema League and a pioneer director of our organization, died February sixteenth of pneumonia in Detroit, Mich., his home, predeceasing the League's President by one day. He died in his fifty sixth year.

Mr. Chapin was one of the incorporators of the League and was elected to its directorate on its creation in 1926. Prior to his becoming Secretary of Commerce of the United States under President Herbert Hoover, he asked to be relieved from service as a League director. During his term of service on the League's governing board, he was actively interested in League direction, although his many duties in other fields taxed his time to full capacity. Mr. Chapin was president of the Hudson Motor Car Company and one of the founders of that important commercial institution. He was a former president of the National Automobile Chamber of Commerce. He was a sturdy champion of good roads and, in earlier days, made the first trip between Detroit and New York City in an automobile.

Mr. Chapin filmed on 35mm. width and had a very large library of his pictures made over many years. His loyalty to the Amateur Cinema League was demonstrated in many ways both during his service as a director and later. He kept in continual touch with League headquarters and made helpful suggestions periodically. His fellow members offer their sympathy to his family and to his business associates.

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FORT WAYNE INDIANA

(Continued from page 134)

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
St. Paul: Eastman Kodak Stores Co., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
W. Schiller & Co., 6 S. Broadway.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 419 S. 16th St.
J. G. Kretschmer & Co., 1617 Harney St.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Lebanon: Kenneth L. Springs, 41 Hanover St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman's, 384 Springfield Ave.
Trenton: Dwyer Bros., 127 N. Broad St.
Stewart's School Films, 143 Hunter Ave.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Corning: Ecker Drug Store, 47 E. Market St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Howard Beach: Heller's Pharmacy, 100-20 159th Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
Ollie V. Crennan, 498 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Columbus Photo Supply, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
HENRY HERBERT, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co., Inc., 10 W. 33rd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
Henry Westpfal & Co., 4 E. 32nd St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., Cor. 4th and Boston.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: W. F. Drehs, 541 Court St.
Scranton: Scranton Home Movies Library, 316 N. Washington Ave.
Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.
H. H. Page, 115 N. 6th St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
Harrisonburg: Harrisonburg Hdw. Corp., 38 N. Main St.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ALGERIA

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

AUSTRIA

Vienna 1: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Orillia: Stewart Studio, 107 Mississaga St.
Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.
Cairo: Kodak (Egypt) S. A., Midan Ibrahim Pacha. Continental Bldg.
20 Sharia Maghraby.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbin's, 131 High St.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales. 48 St. Petersgate.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Photo-Lux (Bell & Howell Sub-Agent), 37 Cours Clemenceau.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
van Hoytemastraat 51-53.

INDIA

Bombay: Continental Photo Stores, 253 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 70 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORWAY

Oslo: A/S Narvesens Kioskompani, Postboks 125.
J. L. Nerlien, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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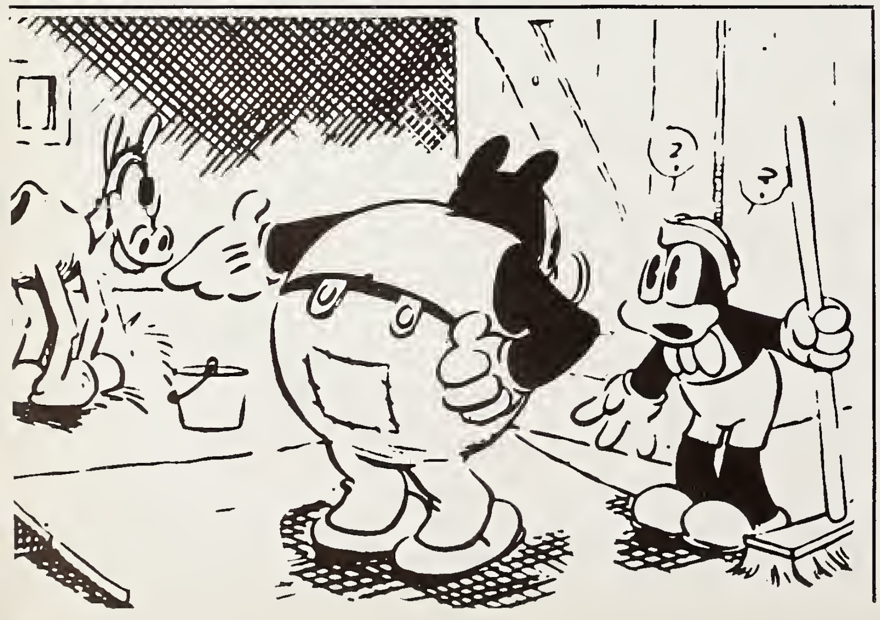

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2. **TECHNICAL CONSULTING SERVICE** ■ The League's technical consultant will answer any member's question by letter, by 'phone or in person if the member calls. He offers advice and help on exposure, focusing, use of filters, editing, titling or interior lighting—in fact, the whole range of technical problems. This service is not syndicated, but actually individual; the consultant will give full attention to any member's problem, sending him a full discussion, illustrated with diagrams, examples, etc., if necessary.
3. **CONTINUITY AND PHOTOPLAY SERVICE** ■ The continuity consultant will aid you in planning specific films by making continuity and treatment suggestions indicating how to get the most effective results not only in the reel as a whole, but in specific shots. In addition to this aid in "planning in advance," he is always glad to make suggestions for future work. He will give specific suggestions for writing scenarios, he will prepare title wordings and outline new subjects for filming. Detailed service in planning business, professional and industrial pictures is offered.
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   Exposure in Essence
   Scenarios Ready to Film
   Titling Technique
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8. **EQUIPMENT SERVICE** ■ New equipment is being announced constantly and this service will help you to keep your own equipment modernized without duplication of purchases. The League aids members in locating new equipment, in making out filming itineraries and equipment lists and in securing specific films to fill in reels. It will also lend its services to facilitate relations between members and manufacturers and dealers, if this should be requested, and will secure information for its members on conditions affecting movie making in foreign countries.
9. **MAKING BETTER MOVIES** ■ A 241 page book on amateur movie making is sent to every member. Written in clear, non technical language, this book gives directions for every process, every device and every trick in movie making that you will be likely to use. It tells you, step by step, just what to do and how to do it to get the best results from your camera and projector. It is well illustrated.
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11. **PUBLIC RELATIONS** ■ The League has been able to accomplish much for amateur movie makers. It secured national legislation abolishing the former duty on amateur films, under regulations that are very fair to amateurs. It has aided in opening previously closed filming areas to amateur cine cameras. Further, the League acts as a clearing house for all ideas about movie making and announces these monthly in MOVIE MAKERS, which is written by amateurs and for amateurs. Amateur needs are told to the industry that provides equipment, and often new and necessary articles have been developed at the instance of the Amateur Cinema League.

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

APRIL, 1936

25c

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FOR the ADVANCEMENT of AMATEUR CINEMATOGRAPHY

A Tribute to a Great American

What movies mean to me

HIRAM PERCY MAXIM

IF I were asked to list my three most valued belongings, I believe I would name my cine camera, my books and my boat. Some of my friends will raise their eyes at this statement, having in mind certain evidences concerning raw oysters, roast beef and my little country place. I acknowledge the validity of these doubts, and yet I feel quite certain the absence of these latter items would not make such a hole in my life as would the absence of my cine camera, my favorite books and my boat.

The fact that I include among my three choicest possessions my cine camera may seem a curious thing. Why the sort of a person that I am should include a cine camera in his list of choicest possessions needs explanation, I confess. In thinking of the matter, I thought at first that I included my cine camera because the shabby old thing and I have been such intimate companions for such a long time in such a wide variety of places. Together, we have covered a lot of territory. But so have I and my watch, my compass, my trusty outboard motor and my knife, and yet I do not feel for these what I feel for my cine camera. Long and intimate companionship is not the whole story, in other words.

I suspect the answer is something connected with the fact that my cine camera possesses unique qualities. For example, it can record and bring back treasured experiences of the past. When I am clever enough, I and my cine camera together can bring back, in addition to the actions of the past, the atmosphere, the mood and the tempo under which the actions occurred. This makes it possible for others, who had no part in the experiences, to go through them and sense them. In short, my cine camera and I actually not only bring back the past pictorially, but also descriptively. Therefore, I have in my camera a machine that transcends photography.

Another thing which endears a cine camera to one is that the unexpected happens so frequently when one attempts to record experiences. An action, which seems anything but important or beautiful, frequently will turn out to be something very precious. We treasure certain experiences because they were pleasant, contain something beautiful or represent a memory of an action which never again, until the end of the world, can be reenacted. That particular twenty foot film which has upon it the fleeting glance and the remembered mannerisms of a loved one who has gone forever has a value that cannot be expressed in worldly goods. Not only do I treasure mine but I know they are going to be even more highly treasured by those who come after me. My cine camera and I made these films, and consequently it and I have a sentimental something in common; we have shared in the accomplishment.

In this connection, I have often thought what we grownups of today would give to be able to see in motion pictures our parents and our grandparents when they were young! What sort of persons were our forebears is something about which most of us wonder. Thanks to amateur cine cameras, the generations to come will be able precisely to see what their forebears were like—provided they are not so unfortunate as to descend from forebears too benighted to take cine photographs.

I fancy it is this sort of thing, difficult exactly to define, which endears the cine camera to me. Can it be that the same thing exists in the case of books, paintings, rugs, horses and dogs? To many of us, the possession of the latter conveys an immensely pleasurable mental experience. In my case it is my favorite books and my boat which take their places beside my cine camera. My books bring back moments of inspiration and mental exaltation, just as a few of my films do. I believe, however, there is a difference, possibly because my cine camera represents the tool, the wielding of which produced the film I love. The books have not this property.

In the case of my boat, she is again different, and I suppose I love her because she is such a good little boat, she and I know each other so well, we have been through so many tight places together and because we have each such implicit confidence in the other.

The distinction may be clearer when it is realized that the cine camera appeals to one's intellectual side, as do one's books, whereas one's boat offers the opportunity of meeting and overcoming hostile natural conditions, something which all of us enjoy to a greater or less degree, depending upon how recently our ancestors have been civilized.

My cine camera, however, is as necessary on my boat as is my galley stove. Not that I always use it every time I use my boat; but I feel I must have it along in case anything interesting or beautiful is encountered. To fail to record such things is to throw away opportunities. Many times have I seized my camera and made a few chance shots, which I did not believe would amount to much, only to find, when the film had been processed, that they were among my choicest films.

When one accumulates a number of these choice bits, it is possible to arrange them in such a way that they bring back the atmosphere and mood of the original event in a manner that is astonishing. Cinematography, as we amateurs practice it, is to become an important factor in civilization, in my judgment, and I fully expect to see it come into very wide use.

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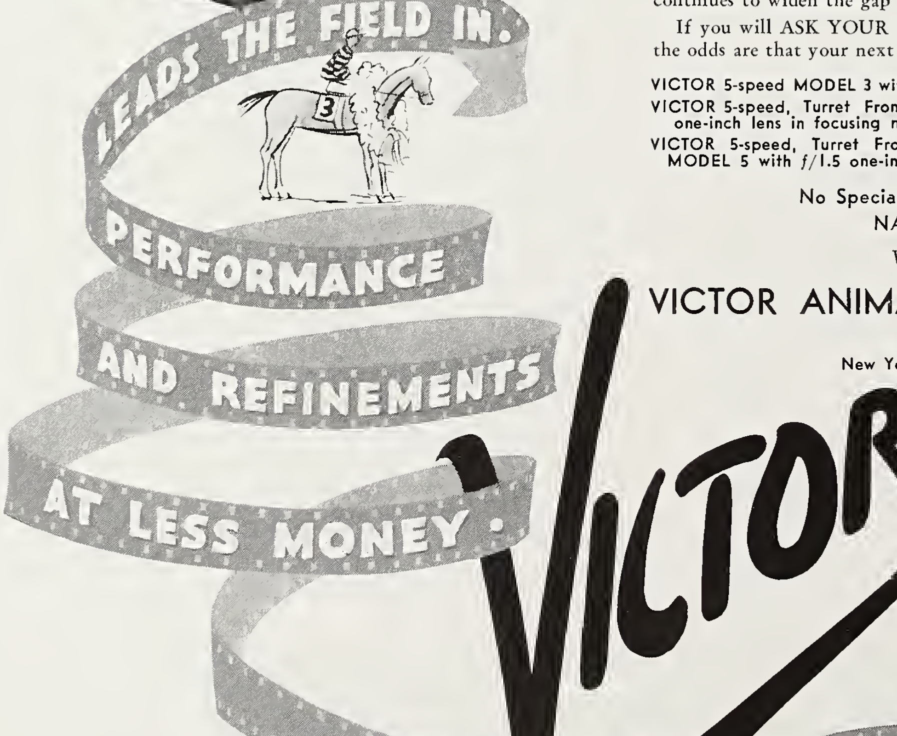

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MOVIE MAKERS

Roy Pinney

The magazine of the Amateur Cinema League, Inc.

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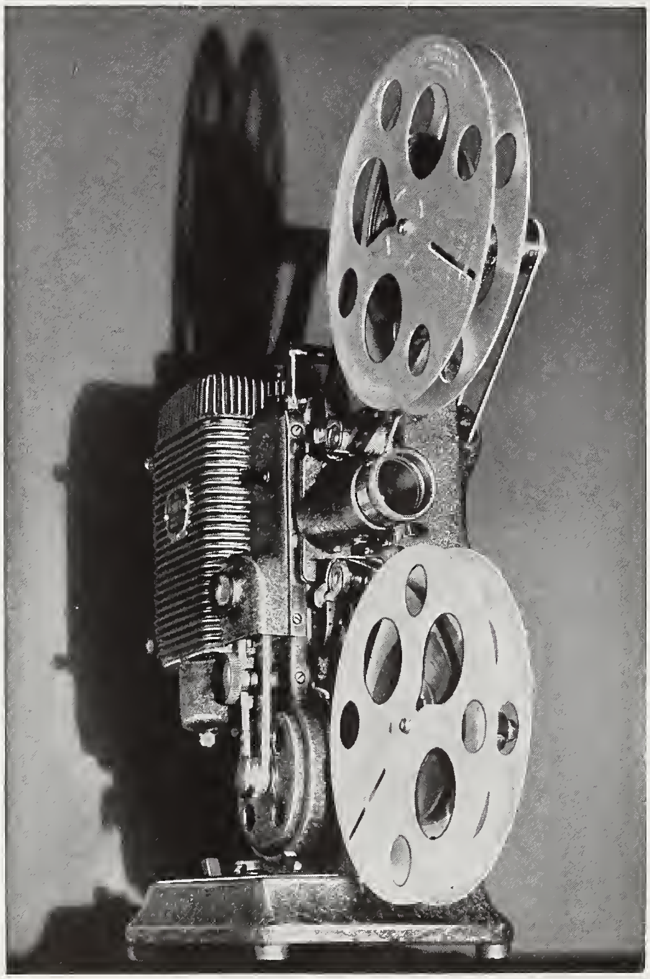

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A check list

BEFORE 1930, the majority of personal filmers were uncertain and tentative in their movie making methods. The now large and impressive body of experience was building up with the guidance of the Amateur Cinema League and from the efforts of thousands of individuals, each of whom was sacrificing not a few feet of film in discovering how best to make movies.

Surely, by the open season of 1936, which is so rapidly approaching, the basic "do's" and "don'ts" of our hobby are so generally apprehended by so many movie makers that one could hope that "a wayfaring man, even though a fool, may not err therein." Now, wasted footage cannot, in any conscience, be excused on the ground that the filmer did not know and could not find out how to prevent the wastage. Spraying the business end of a camera over the landscape, snapping anything and everything in any kind of light or lack of light, permitting footage to be run off on the spur of the moment, without any previous plan—these are follies that personal filmers, even the newest comers to movie making, will not commit.

Because it is so easy to be hasty, to be slipshod and to be forgetful, because these mistakes can harm film footage so seriously and because the best cinematographers need frequently to reestablish their discipline over themselves, the thousands of Movie Makers readers should not fail, as spring opens out into summer, to go over this check list and to fix its fundamentals solidly in their minds and wills.

Is my camera mechanism in order and are my lenses properly seated?

Is the film I am about to use that which will best take the pictures I want to get?

Is my camera carefully loaded?

Am I planning intelligible footage today, or is this one of the times when I have to waste film because of pressure from family, friends or circumstance? If it is the latter, how little do I have to waste?

If I am really going to do first rate filming, have I a general scheme for it?

Have I balanced film speed and the speed of available lenses against the probable light and have I rejected plans that would result in decent pictures only if a miracle happens?

Have I an exposure meter and distance meter or, if not, can I be unhurried and methodical enough to judge exposure and focus calmly?

Am I determined to decide if a movie scene really exists in front of my camera before I press the button?

Is my mind made up to keep my camera still and to let the subjects do the moving, except under justifiable circumstances?

Do I have a general idea as to where this particular scene will fit into the finished film before I decide to shoot it?

Am I determined not to get "rattled"?

This is a check list for every filming expedition, slight or ambitious. Using it will do much to insure acceptable screen results; ignoring it is taking a large chance. Take time to think before you film!

R. I. Nesmith and Associates

R. I. Nesmith and Associates

Here are two scenes which would fit in the continuity theme that is discussed opposite

MOVIE MAKERS

"Zoo" shots

DAVID H. DRUMMOND, M.D., ACL

Zoological garden presents fruitful field for camera

THE thrill of wild animal pictures is well attested by the popularity of the productions of Mr. and Mrs. Martin Johnson, Frank Buck and others in the field. Any movie maker who sees these films on the theatrical screen is likely to want to make such pictures for himself.

Few, of course, can make a trip to the African veldt or the tropical jungles of India in search of film fare, but the great majority of movie makers can make shots of the same subjects in the local "zoo." In fact, the development of a new type of enclosure for the animals, which eliminates the artificial appearing barred cages, makes it possible in some cases to get scenes that are almost as natural as if they were taken in the wilds. These enclosures are made up of three high walls, built of overhanging rocks. In front, there is a deep, wide ditch, which is shielded from the view of spectators by a low ridge. With such an arrangement, there is no obstruction to hamper the spectator's clear view of the animals, and an even better view can be obtained with a movie camera, since the proper choice of a filming position will eliminate the immediate foreground. The relatively narrower angle of the camera lens, as compared to the field of vision, serves an excellent purpose here and, with a telephoto lens, one can make excellent closeups.

In taking pictures to show animals as nearly as possible in their natural environment, careful planning is necessary. A whole day could be spent in studying the animals in their settings, with a view to finding the best camera angles and lighting effects. One should seek brilliant side and back lighting so that the animals will stand out against the neutral gray stone backgrounds. If it is not possible to devote a day to the preliminary work, at least make a couple of visits to the "zoo" before beginning to shoot—take one trip in the morning and another in the afternoon, because lighting conditions will vary greatly in those two periods.

For the actual filming, select a day when few people visit the "zoo" and, if you are planning a consistent illusion of picturing the animals in the wilds, be sure to avoid including any stray visitor in the camera's field.

Color film will give a satisfying reward, for it will record the brilliant markings of the Bengal tiger, the tawny lion and the giraffe, as well as the plumage of the brightly colored tropical birds. Color has the added advantage of insuring that the animals will stand out against the rock backgrounds. Sound films may be still more effective and, with single perforated Kodachrome, it is possible to combine both color and sound on film. If you get permission to make recordings "on location," be sure to avoid getting the voices of the visitors to the "zoo."

Striking results can be produced by using a dual turntable and arranging an accompaniment of appropriate musical excerpts and sound effects. The current selection of sound effect records offers many characteristic animal noises, all actually recorded from animals in the "zoo." The roar of the lion, the grunts and splashing of the sea lions and seals and the growl of the bears, synchronized with the action by means of a dual turntable, give particularly realistic results, especially when presented with appropriate closeups. This treatment can be combined easily with any of the current color processes.

After one has made a preliminary inspection and has determined on what equipment to use, the question of a continuity theme is next in order. If one is filming at a large city "zoo," which offers a great many animals representative of different parts of the globe, a zoological tour of the world in motion pictures would be a possible treatment.

One could start with an outline map of the world, on which a dark spot appears in the arctic region. Then would come a title, such as *Our zoological tour starts in the arctic.* This would be followed by sequences of polar bears, walruses, seals and reindeer. The map then reappears and a black line moves down from the arctic toward Alaska and then to Canada. This would be followed by shots of Kodiak brown bears, moose, the Canadian Lynx, the wolf and the porcupine of the north woods.

Then the map returns to view and the line of travel continues to the Rocky Mountains of the United States. This is followed by the title, *Now we come to our own Rockies.* After the title, the audience would see the mountain sheep and goats, elks, deer, brown and black bears and grizzlies. The names of most of these animals will be known by everybody. However, it might be desirable to insert a few titles which would identify the animals shown. One should avoid the "label" title. This can be done by making the wording a complete sentence—not, for example, just the name of the animals thus, *Black bears.* Careful titling would be a valuable addition if the film were designed for school use. In such a case, the geographical distribution and the scientific name of the animals might be included. This could be illustrated graphically by showing closeups of the world map with the animals' names printed in the areas where they are found. If one is fortunate to have some spare shots of the scenery of this region, their inclusion among the animal scenes would lend beauty and authenticity to the treatment. Next, the map would indicate a trip to the plains, and the animals of the West would be seen. Here one features the coyote, the bison, antelope, rabbits and prairie dogs. A side trip may be made to the Appalachian

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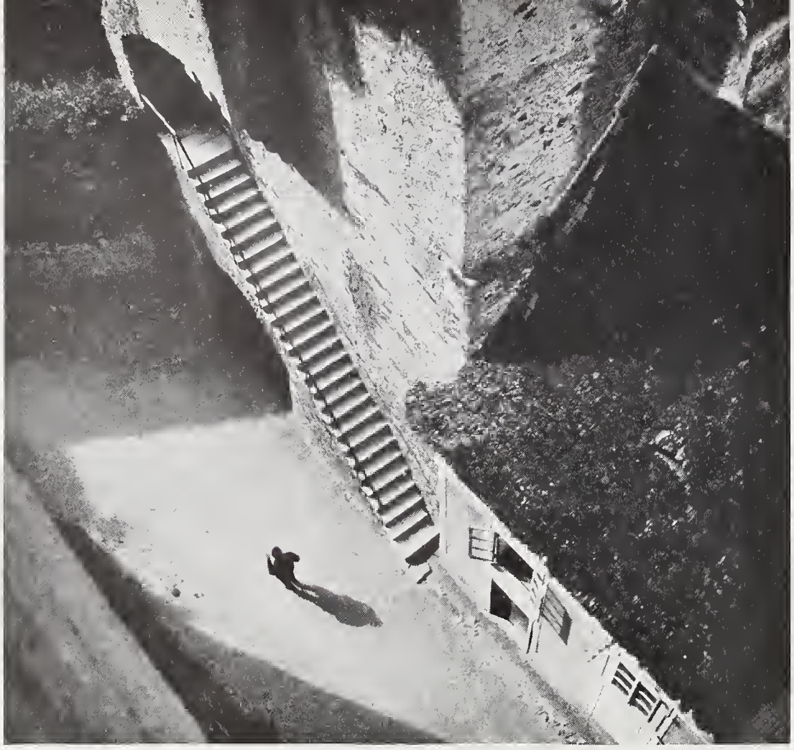


Jan Lauschmann

An exposure meter will solve problems in scenes like this

Things people ask us

ROY W. WINTON, ACL

What can you say when friends want a cine "low down"?

THIS is the fourth excerpt from the record of a long discussion between the writer and a friend of his who admitted that he knew nothing about picture making and who wanted to learn enough about it so that he would not have to look entirely blank when the subject came up.

Those are just a few of the pet words you movie people use. I hear a lot more that I want to ask about. Filters, for example. . . . I suppose a filter is something that cuts down light which otherwise would reach the camera lens. But what I can't understand is why you don't just close down the diaphragm.

You are partly right, but mostly wrong. First, let's see where you are right. There is one kind of filter that will cut down every kind of light that would otherwise reach the lens. It is used in such brilliant light—in the tropics, for example—that the smallest diaphragm opening would not cut it down as much as would be necessary to get the picture you want.

Filters did not get their name because some dumb photographer thought he was a sanitation expert, concerned with the city's water supply. They are actually conveniences—glass or gelatin, generally—that will let certain kinds of light pass while they hold back other kinds. They are chiefly used in black and white and not in color photography, although some special ones are used in making colored movies. What the film in the camera does is to capture, in black and white, the various gradations of light and shade reflected from all kinds of colors in the scene photographed. Blue light is stronger in its effect on most film than other kinds of color reflections. If too much blue light—that is, light reflected from blue surfaces—reaches the film in the camera, it will appear to "burn it out" and the ultimate picture will be mostly white. Other color reflections vary in their capacity to affect film. What the photographer must reckon with is to hold back or "filter" the unwanted color reflections, so far as the picture he wishes to get in the end is concerned. A typical example of filter use is in filming white clouds in a blue sky. To bring out the clouds, one must hold back some of the blue light, or else the picture will be minus clouds and the sky area will be just white space on the still positive or on the movie screen. Film manufacturers have helped photographers in this regard, in recent years, by making film that is more sensitive to certain colors than were previous emulsions. Such film does not require the degree of filtering that older kinds need. You have probably heard of "orthochromatic" and "panchromatic." These are terms defining films according to their sensitivity to various colors—partially color sensitive and universally color sensitive.

You see, therefore, that the majority of filters accomplish something that closing down the diaphragm could not possibly accomplish.

Here's another one. What is an exposure meter?

A contrivance to tell you what camera stop to use, in order to let the proper amount of light reach the film, so that your picture will not be underexposed or overexposed. There are many kinds of exposure meters, the most recent of which operate by using a photoelectric cell. The careful cameraman prefers to use this photographic convenience rather than to trust to his own judgment in determining the strength of light.

And a distance meter . . . ?

A mechanical substitute for a tape line. It gives you the distance between the lens and the subject of your picture.

Why do you use a tripod and lug it around with you, whenever you film? Some don't.

Because, like a lot of other people, I prefer to look at anything in nature when I am standing or sitting still and not when I am jounced around in a motor car, a train or a boat. The tripod keeps your camera steady and keeps your screen pictures from jumping up and down and sidewise.

I know that fades and dissolves carry the audience from one scene to another, but which is which?

A fade is accomplished by a mechanism that gradually cuts off the light reaching the film—fade out—or gradually admits it—fade in—causing the screen image to descend to relative blackness—in the first instance—or to emerge from blackness—fade in. A dissolve operates mechanically in the same way as a fade, but the fade out on one scene occurs on the same length of film as the fade in on the next scene, with the result that one scene is gradually replaced by another. In the fade, the film goes on without being used a second time; in the dissolve the same section of film

[Continued on page 170]

Stunt titles

J. F. HOLDEN

Unusual titles for black and white or color cine films

DEAR Mr. Porter:

I received your kind letter of the 18th. Many thanks.

Yes, I have experimented with making titles until I have almost completely exhausted my ideas for novel stunts. I'll be glad to tell you what my experiences have been so that perhaps you may save some time and effort by not going over the same ground that I already have covered pretty thoroughly.

The average 100 foot reel requires one main and about three secondary titles. Longer films will require a relatively greater number. The general tendency of a beginner at title writing is to make titles too long. While the average printed title size card will accommodate about sixteen to twenty words of average length, a title of this length should be the exception rather than the rule.

Many types of titles are offered by various title services. Some of these are typewritten, some machine printed and some hand lettered; all are very satisfactory for most purposes. However, for the amateur who wants to contribute something personally to titling a film. there are endless opportunities. Since titles can be made to interpret a personal idea, one may have practically anything from a monogrammed title card, machine printed, to titles crudely hand printed on moist sand. There are also on the market a number of home titling outfits which are reasonable in price and inexpensive to operate. I have a titler made by the manufacturer of my camera and I use it often for titling. With it, the title cards can be typed on a standard typewriter and filmed on regular reversal film.

Special titles are most effective if they are made in a style to fit the spirit or theme of the film. For instance, the reel of edited pictures I made last summer at the beach was titled by taking scenes of writing done in the sand with a stick. They were all short titles of two to six words and easy to make. My only difficulty was in timing the writing and photography so that a wave would wash each title off the sand at the proper time.

Last year I made a reel of Boy Scout activities at a camp near my summer cottage at the lake. The Scouts were all interested and anxious to help, so I had them make up the letters of the alphabet out of pieces of rope. It was only a few hours' work for the troop, and the rope made excellent letters in keeping with the theme—Scout craft. Later I used the pieces of rope letters for titling a yachting film. I made a still picture of an anchor, enlarged it to sixteen by twenty inches, mounted the picture on stiff cardboard and used it as a background for the yachting titles.

I might mention here that enlarged photographs for title backgrounds should be soft or flat in contrast. The picture should have enough density to give it a grayish tone value but it should not be contrasty. This effect can be obtained by fogging the enlargement slightly during development, which may be done by flashing a forty watt lamp on and off quickly about three feet above the developing tray after the print is nearly developed. If the enlarging is done commercially, be sure to specify that you wish it much darker than usual.

For my travel films and my European trips, I have used the covers of pamphlets on travel and the advertisements clipped from magazines. Many of these are beautifully colored and can be copied with Kodachrome film. One title, *Mediterranean Cruise 1935*, hand lettered on a color view of the Rock of Gibraltar with the blue Mediterranean in the distance, tells a story and immediately puts the audience in the mood of the subject.

There are on the market celluloid, metal, paper, wood and numerous other similar types of letters which can be purchased for titling. Any of these can be placed on a suitable background to spell out the desired caption. Various kinds of guides for hand lettering can be purchased also.

Last Christmas, I made a reel of Kodachrome pictures of our Christmas tree and the presents. I titled this film by making a border of branches of holly, evergreens and pine cones, leaving a space. twelve by sixteen inches, in the center. In this space I arranged ordinary alphabet blocks to spell out my titles. The result was most effective.

A men's club which I belong to had a sausage roast picnic last summer, and the film of the occasion I titled with frankfurters. It required about five pounds to do the trick. but the results were excellent. The frankfurters were laid straight and crosswise on an enlarged twenty two by thirty photograph of a camp fire to form most of the letters. For the O's, P's, D's and S's, a wire the same length as the sausage was inserted through its center lengthwise, then, when the sausage was bent, the wire made it stay put. If you try this one, bend the wire first, then run the sausage over the wire. We damaged a pound of sausage learning how.

Matches, cigarettes, cigars, lead pencils or clothespins all can be used to spell out titles.

[Continued on page 169]

This shot could be titled with letters formed from rope

Muller-Bradley

When you film the pets

LYNWOOD M. CHACE

Advice about cine methods to use in movies of animals

I HAVE been taking moving pictures of domesticated animals for years. During that time, I think I have worked out some ideas for entertaining and effective animal stories. Let's have a look.

First, there are a few fundamental points which help in getting successful movies of any favorite family pet. The most important is to be able to control to a degree the acting of your players. Getting them hungry and then persuading them, with the aid of tempting foods, to do the various acts seem to be the best answer. The animal, having a keen appetite, will be lured to go through the action that you have arranged for the scene.

Another idea, which usually works successfully, is to arrange a small arena, built in proportion to the size of animals to be cast in the picture, and then to place the camera so that the view just covers the arena. Then, whatever takes place in the arena you are sure of getting in the picture.

The arena also is advantageous because most movie makers do not shoot close enough to make their pictures dramatic and pointed. The use of an arena automatically insures a preponderance of close shots. When a shot of a small animal appears on the screen, the guest viewing the picture should never have to ask, "What is that?" "What are they doing?" or strain his eyesight trying to make out what it's all about. This is something that needs careful attention—especially when there are two or three subjects in the picture. If you don't shoot in close, the animals will be swallowed up by the surroundings. In order to make an impressive movie, the little actors should fill the entire screen most of the time. If the animals are small (rabbits, cats and dogs) and if you are using a standard lens for 8mm. or 16mm. cameras, work two feet from your subject for an extreme closeup, three feet for average closeups and no more than six feet away for general shots.

If a dog is the hero of the tale, don't neglect to take plenty of closeups showing just the dog's head, for such shots will bring out its expression in a powerful manner. To get this pleasing effect, be sure to keep your camera low—in most scenes no more than three feet from the ground. Don't forget to change the angles of shooting during a sequence. Extreme angles often give doubtful results, but, for variety, set your camera right on the ground and shoot the subject. This will give a fine perspective and a new touch to the film.

Another bold and pleasing effect is obtained by arranging a setting for your animal actors on the crest of a hill. Select a day when there are fluffy white clouds in the sky. Put your actors on the crest of the hill and have your camera much lower than the skyline; shoot up at the actors at quite close range, using a K3 filter. I find *f*/11 to be quite successful under these conditions, with the sun at my back to avoid halation and to light up the foreground. It is a good idea, when shooting skyward, to equip your camera with a shade or hood. If you desire a beautiful back lighting effect, have the sun shining in back of the subjects, giving a rim lighting about the outline of the actors that is most pleasing. Shade the lens with the shadow of your hand until the shadow just covers the lower part of your lens hood. With a shot of this type, it is a good idea to use a reflector, to bring out detail in the foreground, unless you are interested in creating a silhouette. This, too, is pleasant and always adds a highlight to your picture. In such a case, I have found that the best results are obtained by shooting, as previously stated, with a K3 filter but with the diaphragm down to *f*/16 or *f*/22.

Then, of course, there must be a story or continuity for the picture. The animal that is playing the rôle of hero is supposed to be adventuring to see just what there is in the world. At the beginning, the subject might start out from its home or, still better, might be seen looking out from the door of its domain. A general shot, showing its home surroundings, and an extreme closeup of the animal's curious eyes looking (this also gives the audience a good view of the star actor) could conclude the brief introduction. Then have your actor run from its home and disappear out of the picture. Follow with a few traveling shots taken from different angles—from the ground level, at a distance of three

[Continued on page 176]

F. S. Lincoln

Show the star at home, resting after his day of travel

J. V. D. Bucher from R. I. Nesmith and Associates

Windy weather

HERMA J. NEELAND

WIND, bending the tall grass, the tops of trees and beating the waters of lake or river into motion, is a cinematic ally of all movie makers. It will give true motion picture interest to scenes that otherwise would be but still studies. The essence of wind, so far as it may be pictured, is the motion that it imparts to all things. Since the essence of the cinema is also motion, the effect of wind makes superlatively good movie material. Here it is presented in a scenario ready for filming.

There is little here that could not be handled technically by the movie maker of average experience and with average equipment, but a number of scenes are indicated that it might be difficult to capture. They are intended as suggestions of the sort of thing that could be done, rather than as iron clad directions for a picture. For example, if you can't get a view of a wind sock, catch smoke driven from a chimney by the wind; if a fountain in the park is not convenient, use a toy sailboat in a tub; if no airport is within ready motoring distance, show the effect of wind on the dust of a country road or on the sand of the seashore. It is easy to substitute other subject matter for that which is indicated in the script, for, no matter where one lives, the effect of wind on nature and people can be filmed easily and with beautiful results. The scenario shows how a cinematic mood can be built up and sustained; you can follow its scheme, even if you don't take the same shots. Try it in black and white or in color.

BEHIND the title, *Windy Weather*, a spinning "world" or globe is surrounded by blowing smoke or steam. There is a dark background behind the globe, and the title and other introductory matter are set in white italics, sliding into the scene in the same direction as the spin of the world, thus giving a further effect of speed. Any small globe could be used against a dark background if the axis of the globe is concealed.

Scene 1. *Medium shot.* Upward angle. Red filter. Weather bureau signal tower against dark sky. Small cumulous clouds (known as scud clouds) in the background. Storm signals are set. A toy balloon floats into frame from below edge of building. (The angle makes this possible.)

The two shots on this page present possible subjects

A scenario which dramatizes wind in shifting moods

Scene 2. *Long Shot.* Downward angle from building. A balloon man is untying a balloon for a customer as the breeze tugs and sways his unsteady stock.

Scene 3. *Closeup.* Street below, upward angle on bunch of balloons. Try for back lighting, to show the slight translucence of the balloons, or try for highlights on balloons.

Scene 4. *Medium shot.* The balloon man standing beside stack of newspapers near newsstand. He is still untying the balloon.

Scene 5. *Closeup.* Wind ruffling the edges of the stack of newspapers. Try for side lighting on edges of papers.

Scene 6. *Extreme closeup.* Weather report in a newspaper which forecasts high winds. The breeze keeps blowing pages up and finally it moves weight holding papers so that the flapping edge obscures all from view.

Scene 7. *Extreme closeup.* Large, dirty piece of paper, flopping in gutter, at first obscures the view, then blows aside to show other scraps of debris raised in small, dusty whirlwinds.

Scene 8. *Extreme closeup.* A cat is lying on sidewalk in front of a shop, dozing. The breeze moves the long hairs of the fur about his neck, and a small piece of paper or debris rolls along the sidewalk past the cat, who watches it lazily.

Scene 9. *Closeup.* Awnings of a shop, fluttering in the fresh breeze.

Scene 10. *Closeup.* Upward

[Continued on page 166]

William M. Rittase

Sport film technique

J. L. BOON

UNDOUBTEDLY, the motion picture is the best means of recording sports and athletic events—both for future entertainment and for the purpose of study and analysis. It is easy to learn from motion pictures what has been done improperly and what has been done in the best form. In short, the movie will serve as a self instructor.

Films have been used by universities and athletic clubs for a number of years and with great success. The coach can study the motion picture record over and over again and can finally determine exactly what is wrong in the football play or with the technique of the pole vaulter, as the case may be.

Not only are such movies of practical value in the improvement of athletic standards, but they also have great audience appeal. Sequences of various sport studies, appropriately edited and titled, are about as interesting material as the short subject can offer. They are very successful on the theatrical screen and they will delight the home audience.

It is not difficult to make sport movies, for athletes and coaches are usually very cooperative, especially if they are given an opportunity to see the pictures afterward. If one does not live near a college or a well equipped athletic club, he still can find splendid material in the high schools and, since the boys and the high school coaches rarely have an opportunity to see their work on the screen, the movie maker can count on enthusiastic cooperation. He can compile his own sport reel or gather material for sequences in his newsreels.

Maneuvering your camera to secure the fullest scope

Since, in sport filming, the location for taking the pictures is usually limited, it is wise to have an assortment of various focal length lenses. If there is a choice of locations, it is usually best to select the type of viewpoints used by newsreel and short subject cameramen. In many cases, the sport itself and the purpose for which the pictures are to be used determine the location, or at least limit the possibilities.

The amount and kind of light falling on the camera field are important —even more so than in other kinds of photography. In order to slow down the motion, which is very important in sport work, and to prevent any harmful degree of movement of the subject from one frame to the next, the camera must be driven faster than the normal sixteen frames a second. This calls for the best possible light, because a small stop, with the resultant depth of field, is highly desirable. Golf pictures require at least sixty four frames a second, and sometimes even higher speeds are needed. If one films motion at the rate of 100 yards in ten seconds, there will be a jump of twenty two and a half inches from one frame to the next if the camera is operated at normal speed. This may be reduced to eleven inches at twice normal camera speed, or to about six inches at four times normal. If the shutter opening is 180 degrees, a frame of film will be exposed during 1/128 of a second at this four times normal camera speed and the subject will move about three inches during this time. If we allow a field width of fifteen feet, then the subject moves about one sixtieth of the field width during the exposure period and the image on the film moves the same proportion of the aperture width. This means that the image moves about .006 of an inch, which is sufficient to blur the picture in the direction of movement. If the camera has a variable opening shutter, the 180 degree opening may be decreased to, for example, one quarter, and the movement of the image during the exposure period will be decreased to about .0015 of an inch. This assumes, of course, that no "panoraming" is done. From this, it may be seen that, in order to get less movement of the subject from frame to frame or to slow the motion, more pictures must be taken a second than will be shown in a second of projection. Increasing the camera speed to above that normally used also decreases the blur of the image. This blur also may be lessened by decreasing the shutter opening. Sometimes it is difficult to realize from slow motion pictures just how fast the action was when the picture was taken, but a great deal more may be learned about technique and form, since the eye can follow various movements.

Philip D. Gendreau

There is a fallacy that blurring may be decreased by using a longer focal length lens, the picture being taken farther from the subject, or by using the same focal length lens at a greater distance. In the former case, if the resultant image on the screen is the same size as it would be if it were taken with the shorter focal length lens at a nearer distance, then the two pictures will give the same effect of blurring. In the latter case, the blurring is decreased, but the size of the image is also decreased in the same proportion, so that nothing is gained.

Don't forget the sideline sequences in a sports film

Telephoto lenses are used to make the subject fill the entire screen, or to make it large enough so that it will appear more natural. Telephoto lenses will prevent too great a change in magnification when the linear component of the action toward and away from

[Continued on page 167]

The League's new President

ARTHUR L. GALE, ACL

What he has done in amateur movie and other fields

ENGINEER, architect, soldier, artist, executive, public leader and humanitarian, Stephen F. Voorhees, ACL, brings to the Presidency of the Amateur Cinema League a rich experience in doing those things which an organization leader must be depended upon to do in his capacity of chief. Added to these important capacities, Mr. Voorhees contributes a broad understanding of personal motion pictures that dates back to the earliest introduction of substandard filming.

Mr. Voorhees has, for a decade, served the Amateur Cinema League as an executive and director. When the League was organized in July, 1926, he was chosen as a director; on the incorporation in 1927, he was elected pioneer vicepresident, which office he held until his advancement to the Presidency in February of the current year. His services have been given generously through the years, in spite of increasing demands on his time and effort.

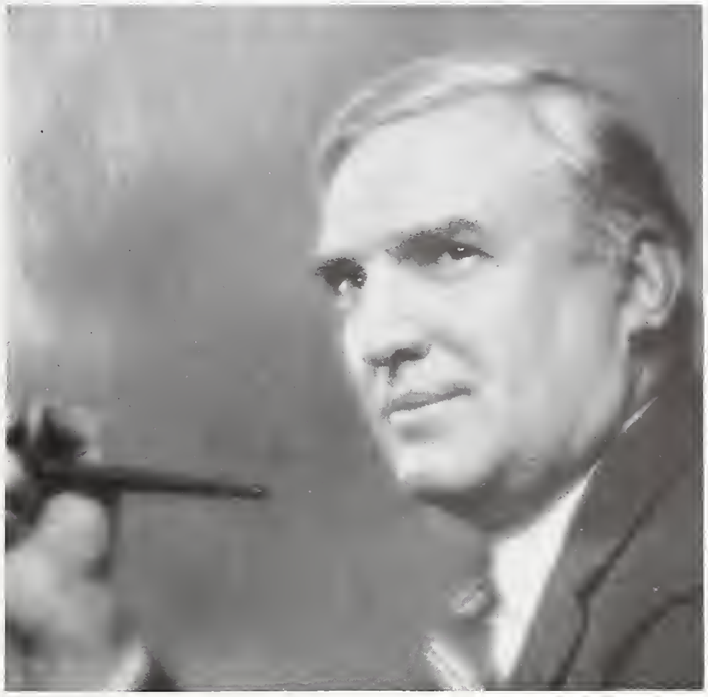
Senior partner of the firm of Voorhees, Gmelin and Walker, the League's President is an architect of international reputation. His firm has been responsible for such buildings as those erected for the New York Telephone Company, the Western Union, the Irving Trust Company and the New York Times, in New York City, and for the Travelers Insurance Company, in Hartford, Conn. The firm designed the George Eastman memorial at Kodak Park, in Rochester, N. Y. The history of modern architecture in the United States is interwoven with the work of the partners and associates in Mr. Voorhees's firm. They are architects for associated companies of the Bell Telephone System and are consulting architects for the American Telephone and Telegraph Company. In this capacity, their work has been nation wide.

In addition to his achievements as head of his firm, Mr. Voorhees has won great personal eminence in the field of architecture. He is now president of the American Institute of Architects, the highest honor offered in his profession. He helped to found the New York Building Congress and was its president from the inception until 1931.

In this work, Mr. Voorhees established himself as an important contributor to the effective and cooperative relationship between management and men in the building industry. In a field in which this relationship had been strained to the uttermost, Mr. Voorhees, by the influence of his character and the confidence placed in him by employees and unionized labor leaders alike, was able to set up peace as the norm in New York City building activities. As a recognition of this work, he is an honorary member of Bricklayers, Masons and Plasterers International Union of America.

Mr. Voorhees has been secretary of the Architectural League in New York City and has been president of the New York Chapter of the American Institute of Architects. He has served on numerous boards and commissions, local, regional and national, where he has represented the construction industry.

During the NRA era, the entire building industry, normally employing more persons than any other in the United States, insistently called Mr. Voorhees to its leadership. He accepted the call and served as chairman of the Construction Code Authority until its dissolution. Here, conspicuously, Mr. Voorhees's humanitarianism stood out and, under his guidance, the construction industry worked out a system of labor relations that was accepted as well in advance of that devised in many other industries.



Pirie McDonald

Stephen F. Voorhees, President, Amateur Cinema League, Inc.

A graduate of Princeton University, Mr. Voorhees takes a keen interest in college affairs. He is Princeton's Supervising Architect and holds several advisory and committee posts in connection with departments of that university. He has held class offices and has been president of the Princeton Engineering Association and Princeton Architectural Association. His interest has not been confined to his own school, for he has addressed numerous collegiate and educational meetings.

The League's President has been a photographer from the days of his youth, when only plate cameras were available and when movie making was unheard of. He and a boyhood friend went so far as to set up in business and provide the small town of Rocky Hill, in New Jersey, with a photographic service in which scenic studies were sold and portrait commissions were undertaken. Although the business disappeared when the two boys left for college, Mr. Voorhees maintained an active interest in still photography until movie making was made possible. Since then, he has made movies only.

Mr. Voorhees thus explains his first interest in motion pictures. "During the World War," he says, "I served in the Surgeon General's office in charge of the design of Army hospitals. Next to my drafting room was located the motion picture laboratory where instructional pictures were made for use in medical training centers. Through contact with the officers in charge I developed a strong desire to make my own movies. I was deterred for a time, however, because of the cost involved and the cumbersomeness of the equipment, but as soon as 16mm. cameras and projectors were introduced, I bought an outfit."

He got one of the first hand cranked Cine-Kodak cameras and, subsequently, a battery driven model. Therefore, his personal film library dates back to the earliest period of amateur movies, in which he was a genu-

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Test shot staged by Amateur Cinema Club of Buffalo

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

New in Philly ■ The Philadelphia Cinema Club, a new group of amateur motion picture cameramen which will represent the city wide interests of movie makers in the Quaker City, has been successfully organized, according to the report of A. L. O. Rasch, secretary treasurer. Over twenty five already have enrolled as charter members, and the rolls will be closed, in accord with a recently adopted constitution, at a top figure of seventy five. R. M. Hoot is the first president, with G. A. Pittman, ACL, serving as vicepresident. At the organization meeting of this strong new group, Colonel Roy W. Winton, ACL, managing director of the League, extended the best wishes of the League to the club and James W. Moore, ACL, League club consultant, outlined activities which might be carried on successfully by an amateur cinema society. Late meetings have been held at the headquarters of the Electrical Association of Philadelphia and have featured discussions and screenings of Kodachrome filming, led by H. Paul Kelley, of the Eastman Kodak Company.

Washington is host ■ At the recent annual Guest Night meeting of the National Capital Cinema Club, in Washington, D. C., more than fifty members and guests braved the subzero cold and snow to see the four reel production, *A Cruise to the Land of the Vikings*, latest color achievement of John V. Hansen, ACL, technical advisor of the club and recently elected director of the Amateur Cinema League. In this film, shot entirely in Kodachrome, Mr. Hansen has brought to a new high his outstanding ability to manipulate a color medium under all conditions of light. At an earlier gathering of this club, Mr. Tragen, official photographer for the United States Department of the Interior, screened a series of his own color films of the National Parks.

Joliet organizes ■ In Illinois, the Joliet Camera Club, a new and enthusiastic group devoted to the interests of both still and cine photographers, has been organized, according to the report of Earl Mercier, ACL, secretary. The other officers include Harold J. Crips, president; Arthur Stanersen, vicepresident; Carl Ferries, treasurer. Nearly forty members are already enrolled in this club, which meets the first and third Mondays of each month, with programs alternating between still and motion picture interests. Recent gatherings have featured a discussion by Mr. Mercier of cinema composition and a general talk by H. D. Grose on still photographic problems.

Pair for Northwestern ■ Organized just a year ago, the Northwestern University Cinema Company, a production group operating under the leadership of Fred S. Niemann, has already produced two feature length dramas and a number of successful short subjects of college life. *Murder by Proxy*, the production of last spring, ran four reels of 16mm. film and included a great deal of exterior color work. Among the featured players were Martha Purnell, Betty Bebb, Tom Carmody, Jack Graham and Morrie Clark. *Soft Hat* is the title of this season's film, which will shortly be completed in six reels, the majority of it shot indoors but again with full color exteriors. Miss Purnell leads the cast which includes Roberta Butzloff, Marjorie Coleman, Virginia Torcom, Ray Kotz, Roger Bernhardt, Mr. Clark and Professors Lee and Smith, of the university faculty. Mr. Niemann has been handling the photography and editing, with the assistance of James Algeo, director, David Just, lighting, and Doris Caesar, titles.

Staten Island meets ■ At least ten active movie makers have responded to the suggestion of George T. Smith, ACL, carried in these columns, that an informal movie club be organized in the Staten Island community, and the formation of the Staten Island Cinema Club is the result. Mr. Smith heads the group as acting secretary, pending the election of officers. Early meetings have featured a screening of films from the League's Club Film Library and an informal competition among the members for the best 100 feet of 16mm. (50 feet of 8mm.) film in black and white and in color. Frank Gunnell, ACL, a Movie Makers Ten Best award winner, carried off both places and award leaders with *Jamaica* and *Autumn Picnic* respectively. The clinical screening of members' films has already brought forth *Mississauga Canoe Trip*, by F. D. Koehler, jr., ACL, and unnamed pictures by Harry Woehlker, Fred Forder, Thomas Kircher, ACL, and Mr. Smith.

Austria sees amateurs ■ In Vienna, the Klub der Kino-Amateure Oesterreichs, ACL, has presented *The Fall of the House of Usher* and *Mr. Motorboat's Last Stand*, from the League's Club Film Library, on a program of amateur motion pictures screened before more than six hundred students at the Vienna Volkshochschule, an advanced institution for adult education. On the program with them were two Austrian and one German made films, the first amateur productions ever to be presented in this university seminar on motion pictures being conducted by Dr. Angel, an Austrian theatrical film director. Under the guidance of the Austrian club, the two distinguished American pictures have now completed a widespread circuit of screenings before all the leading amateur cinema clubs of Europe. The Austrian club is proud to [Continued on page 176]

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Centering ■ A method whereby one can center titles easily but accurately is always welcome to any movie maker. One of the simplest of these ideas is to use a paper tube which will fit snugly over the barrel of the lens. The ends of the tube are cut absolutely straight across and, when one end is slipped over the lens, the other may be placed next to the title or picture to be filmed. Using the end of the tube as a reference point, it is easy to center the title. This method is very helpful in centering pictures and trick title backgrounds that cannot conveniently be placed in a titler. It would also help in centering small objects in very near closeups. For permanence, it is suggested that a fiber tube be used and, if it is made in telescoping sections, the manipulations will be easier. *—Philip G. Lasky, ACL.*

No panacea ■ A filter is a very helpful friend when filming many movie subjects under a variety of conditions, but it does not cure all photographic difficulties by any means. The most common use for a filter is to improve the rendition of clouds, but remember that it does so only by darkening the blue of the sky and that, if there is no blue, the filter cannot do its work well. Another use for the yellow and red filters is to cut through haze. Yet, while a great deal can be accomplished by a strong yellow filter, it cannot make a foggy, smoky atmosphere look clear and bright. A filter helps to overcome the effect of haze by cutting down the blue light that is reflected from the suspended moisture but it has no effect on smoke. Movie makers seldom use filters for correct color rendition, but the yellow filters have that function with most kinds of panchromatic film. The supersensitive panchromatic types require a green filter for the same purpose.

Color hint ■ Since Kodachrome and Dufaycolor films are balanced for daylight, scenes made with incandescent light require a special blue filter if they are not to appear slightly yellow. If, in an emergency, it is necessary to take indoor color pictures without using the filter, the color can be corrected on the screen by placing a light blue filter in front of the projection lens. The regular incandescent light filter for use on the camera will do for this purpose. While filtering the picture during projection cuts down the light to some degree, it often helps to make the picture more real if there is an excess of yellow. When this filter is used in projecting outdoor pictures, it makes them appear colder, and the warmth of sunlight is cut down. Interesting effects can be worked out by placing various lightly tinted filters on the projection lens.

Inertia ■ It should be quite obvious that the inertia of automobiles, buses, trains and other vehicles is far greater than that of a human being. Considering this fact, it is obvious that, in making pictures from a moving vehicle, one will get the steadiest results on the screen by supporting the camera on the vehicle in some way rather than by holding it independently in the hands. Some movie makers have brackets fitted on their cars so that the camera may be mounted firmly. While this is obviously impossible when filming from buses and trains, it is not difficult to hold the camera against the side of the car, a window ledge or rail. It may seem to the cameraman that there is a great deal of movement, but what he feels is the motion of his own body—not that of the camera. Another aid in filming from a moving vehicle is to shoot the scene at a higher camera speed than normal, perhaps twenty four or even thirty two frames a second. A traveling camera shot made from the top of a bus can be very effective if it is filmed with reasonable care. A sequence of this type would make an excellent introduction to a film study of a city or an impressionistic reel of methods of transportation.

Color test ■ One of the most interesting and profitable tests that the color movie maker can undertake is to film a series of short shots of a given subject and to expose a foot or two at each opening of the lens. Start with the widest aperture and film a short strip at each stop, noting the diaphragm openings on a card. The difference in color strength, emphasis and rendition will be brought out clearly.

Sharp focus ■ Never buy a telephoto lens and screw it into a camera mount without having it checked either by the lens maker or by the camera manufacturer. One cannot be sure that the pictures will be sharp unless the lens has been checked on the camera. It is most unwise to attempt to use a new telephoto lens without going through this procedure as a safety measure. [Continued on page 170]

Bus tops are fine camera trucks if the shot is steady

F. S. Lincoln

News of the industry

RUSSELL C. HOLSLAG, ACL

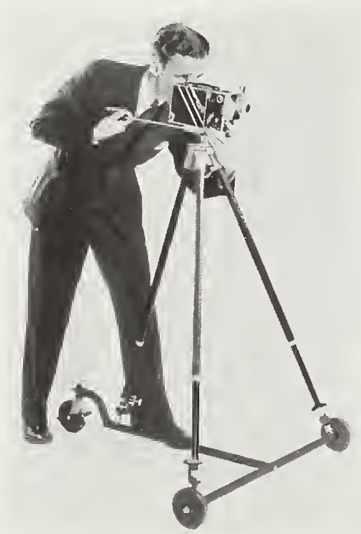
Kodascope E ■ An outstanding new development in the medium price projector field is the new Kodascope E, offered by the Eastman Kodak Company, Rochester, N. Y. Workmanship and finish in the new machine are well up to the best standards maintained by this firm, yet the price is unusually moderate, being but $47.50. The Kodascope E is built with a pedestal base, giving a broad, firm support, and the screen image is centered by means of a tilt incorporated in the supporting column. The machine is modern in design and will take various lenses and lamps interchangeably, being adapted for either a two inch, *f*/2.5 lens or a two inch, *f*/1.6 lens and for 400, 500 or 750 watt lamps. A rapid motor rewind is incorporated. A framing device is provided which, while in operation, keeps the projector aperture image centered on the screen. An interesting feature is found in the long pedestal support, which enables one to use the projector atop its own case, dispensing with need for a table or other projection support. The motor has a variable speed control and operates on A.C. or D.C.

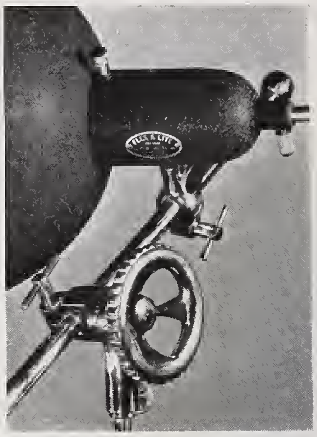
Foto Fade ■ Movie makers who take pride in the finished appearance of their films will learn with interest of the development of an opaque dye for producing fades of any length on finished film. The film may be selectively dipped in a solution of this dye, known as Foto Fade, to produce an even, gradual darkening, and the action takes place rapidly so that the operation is complete in a short time. The process is also economical in use. Further information may be secured from the makers, Dye Research Laboratories, 319 Jackson Street, Los Angeles, Calif.

Photo Utilities ■ Herbert C. McKay, F.R.P.S., formerly dean at the New York Institute of Photography, has joined the staff of Photo Utilities, Inc., 10 West 33rd Street, New York City. Mr. McKay long has been an outstanding figure in motion picture and still photographic fields by virtue of his researches and by his numerous books and his lecture work. The experience he brings to Photo Utilities, Inc., will be very valuable to the firm.

E. K. dolly ■ Movie makers who want to achieve the effects given by the traveling camera, and who desire instant mobility for camera and tripod, will be interested in the advent of the new Cine-Kodak Tripod Truck. This is a substantially built structure, made of tubing, which rolls smoothly on three rubber tired wheels. Positive locking devices secure the tripod legs firmly so that there is no danger of tipping. The truck may be made to roll in a straight line or diagonally at will. A brake bar arrangement, worked by foot pressure, locks one wheel rigidly so that the truck will not roll, if a stationary shot is desired. For carrying, the device comes apart in two sections. The manufacturer is the Eastman Kodak Company, Rochester, N. Y.

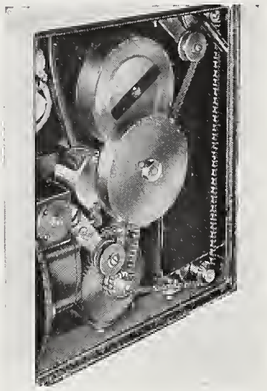
Cine-Kodak Tripod Truck which helps in making traveling scenes





Universal adjustment is offered by the swivel clamps which are a part of the Flexalite unit

Britelite ■ Motion Picture Screen and Accessories Company, 526 West 26th Street, New York City, has announced several major improvements in its DeLuxe 'A' motion picture screens. Working in conjunction with one of the leading textile mills, this concern has developed a screen cloth of a new type, which is said to retain its basic white color for a much longer period of time, and thus it provides a backing for the bead projection surface of permanent brilliance. A further improvement also has been made in simplifying the operation of this type of screen. The projection surface is now erected automatically and instantly by the simple operation of lifting it up from the box. No increase in price will accompany these improvements. Further information will be supplied on inquiry to the manufacturers.



Silent, positive chain drive serves instead of gearing in DeVry sound projector

U. V. recording ■ At a recent meeting of the Atlantic Coast Section of the Society of Motion Picture Engineers, there was given an effective demonstration of a new sound on film recording process. The new system, developed by J. O. Baker and G. L. Dimmick, of RCA Manufacturing Company, Camden, N. J., makes use of ultra violet light for recording the sound on the photographic emulsion instead of the usual white light. The method employed was disclosed in a recent patent issued to Carl L. Oswald, well known figure in the photographic field and Movie Makers author. The new method, as demonstrated, revealed that new standards of excellence in film sound recording had been reached.

Field contest ■ Because of the large number of entries in its contest last year, Marshall Field & Company, State Street, Chicago, has completed plans for a Third Annual Photographic Competition and Salon. This year, the competition will be made in two divisions—one for amateurs and one for advanced amateurs. Although the competition covers still prints only, the Grand Prize in the amateur division is a Magazine Cine-Kodak. Other valuable apparatus prizes will be awarded. Those interested should send for entry forms; these will be supplied by Marshall Field & Company at any time before the last day for receiving prints, which is May 22.

Barleben-N. Y. Institute ■ The position of dean of instruction at the New York Institute of Photography, 10 West

[Continued on page 174]

Making things move

LEO J. HEFFERNAN, ACL

IN the pages of MOVIE MAKERS, the attention of cine amateurs has been directed more than once to the possibilities of adapting table top still photography to the requirements of the cinema. By "requirements of the cinema," of course, is meant the introduction of motion in the screen picture.

At first thought, it would seem that table top subjects are hopelessly handicapped in this respect. They may be art objects, pieces of machinery or equipment or miniature setups of one kind or another, but for the most part they are motionless. Nevertheless, no matter how static the subject, it may be given cinematic interest in one way or another. For example, the subject (let's say that it is a vase being filmed in color) may be turned steadily and evenly within the camera field so that the audience will see the complete pattern and at the same time will get the effect of motion. If the object cannot be moved, the lights playing on it can be given movement, and a changing lighting effect will give the picture interest while, if both of these are undesirable, the camera itself may be moved, forward or backward as the case may be.

Such work is greatly facilitated by building a special table for the purpose, such as shown in the illustration on this page. Lights and camera are attached to this table so that they can be moved in relation to one another, producing a changing pattern of illumination and a variation in the camera's field.

But, of course, excellent results can be obtained with much simpler equipment. The old fashioned piano stool makes a perfect revolving stage—that is to say, for a period of two or three revolutions. After that, raising or lowering the stool seat will be noticeable. This defect is minimized by placing the camera as high as possible and tilting it downward. The stool top area may be enlarged by placing upon it a false top of wood veneer cut circularly in the desired size. Wallboard also can be utilized for the purpose. The effect on the screen, if the stool is rotated very slowly and evenly, will be that of a traveling camera; but jerkiness will spoil the illusion.

One should not attempt to make up a reel consisting entirely of shots of various objects or miniature settings revolving aimlessly. Rather, it will be found that the individual scenes of this sort are usable only if created for a definite purpose and introduced into the reels judiciously. For example, an ideal way to indicate lapse of time in a screen play is to photograph an attractive looking clock on the revolving table. When the camera (seemingly) circles the clock a second time, the hands of the clock are in a different position, showing in a striking manner the period of time which supposedly has elapsed. Thus, even makeshift equipment may be used in producing exquisite closeup shots.

The manipulation of moving lights requires a certain amount of dexterity when they are not mounted on the revolving arms of the special table, but the trick can be done and the same effects can be obtained as with the table. One method is to suspend the lights from rafters or from a ceiling by means of wires or strong twine. As the camera purrs, the lights are rotated slowly around the subject while one takes care to point them accurately and to keep them always at the same distance from the table. There results an interesting play of shadows on the floor of the "stage."

The simplest way is to work with hand held lights, arranging the wires so that the lights may be manipulated freely. A little practice with a light held in each hand or, if but one light is being used, in passing the light from one hand to the other will be necessary before each shot is made. The work is made easier if the table top set is placed very low and the person holding the lights is bending over it. The camera, too, must occupy a low position or a camera shadow will result.

Cinematography on moving "stage" is full of interest

A table, such as that shown in the illustration, can be made quite easily. It can be built of wood or of metal. A plumber or pipe fitter can put it together in a few hours. Three arms, one for the camera and two for lights, are mounted independently on a central shaft so that they revolve with ball bearing smoothness around the table top. The camera, of course, is mounted on the inside arm, as otherwise the lights would cross the field of view. The table shown in the illustration is collapsible and takes up very little area when disassembled.

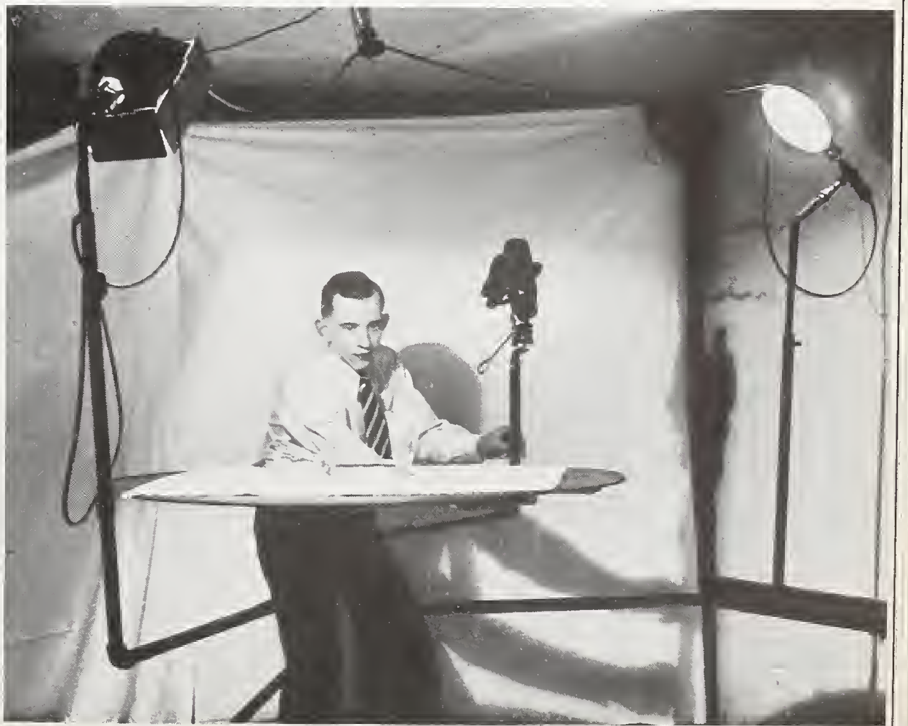
No hard, fast rules can be laid down concerning subjects best suited to table top photography and how the "stage" should be dressed. So much depends on the means at hand and on one's own inventiveness that advice along these lines must be general. While objects used in the various compositions must be small, numberless odds and ends may be mobilized in one's army of still life subjects. There is one requisite which all bric à brac and *objets d'art* must have—the rotating camera makes it necessary that the rear view be interesting, and this eliminates hollow statuary with gaping holes in the rear.

The floor of the "stage" is very important. As jet black is hard to produce by the use of textiles, the table top should be given one or two coats of optical black paint. Other effects are produced by stretching cloth of the desired color tightly across the table and pinning it underneath with thumbtacks to prevent wrin-

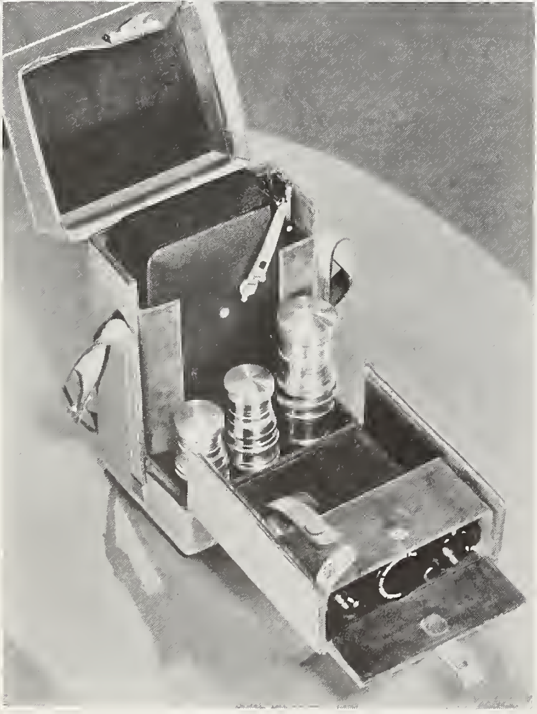
[Continued on page 173]

Mobile lights and "stage" give still life movie value

Leo J. Heffernan, ACL



Magazine Ciné-Kodak



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Movie makers will be quick to appreciate the convenience of projection from carrying case top.

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Movie makers will be quick to appreciate the convenience of projection from carrying case top.

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Practical films

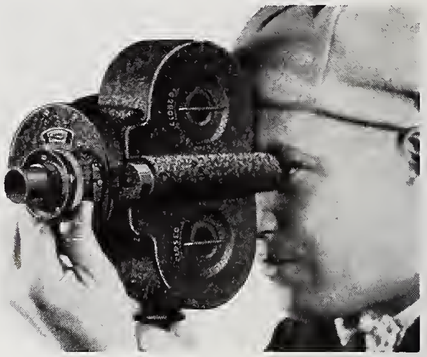
Reporting use of personal films in serious fields

■ In behalf of the Colonial Bakery in Des Moines, Iowa, Charles Luthe, jr., ACL, of that city recently has completed a two reel picture (color and black and white) on baking bread. The film starts with sequences on the history of bread as a food and then presents a tour of inspection of the Colonial Bakery. The plant's cleanliness and efficiency are emphasized in a sales message for both grocers and consumers. A housewife's visit to the bakery is used as a continuity motif, after the historical introduction.

■ When acting as publicity director for ERA in Maine last summer, Hildreth G. Hawes, ACL, of Hallowell, Maine, completed an 800 ft. reel of the activities of service clubs and, in addition, other pictures presenting instructions on canning fruit and vegetables. The latter reels contained sequences in color. Mr. Hawes also filmed a 400 ft. picture of the airport program of the Maine State Government. At present, reports Mr. Hawes, silent 16mm. motion pictures are being made by four departments of the State of Maine, these being the Departments of Agriculture, Inland Fish and Game, Forestry and the Development Commission. Publicity men and employees of the bureaus handle filming, editing and the presentation of the pictures.

■ F. J. Couse, ACL, of Baltimore, Md., foreign freight traffic manager for the Baltimore and Ohio Railroad Company, has made, during the course of several years, a number of 16mm. movie records of the technique of the interchange of freight traffic at the seaboard. The pictures show how various kinds of freight are transferred from ship to railroad car and vice versa. During his early experience in soliciting water borne traffic for the Baltimore and Ohio, Mr. Couse found that inland shippers had very little knowledge of the interchange of freight traffic between the railroad and ocean vessels, and the need for presenting his clients with a clearer understanding of this technique brought Mr. Couse to the use of the 16mm. motion picture camera. He states that there is no doubt but that the films have proved their value many times over.

■ A motion picture recently made by W. O. Mussey, jr., ACL, of Denver, Colo., has solved the problem met by The Dental Specialty Company in selling its products and equipment to dentists. Mr. Mussey discovered that most dentists were entirely unfamiliar with the mechanical principles embodied in the equipment offered by his company and he planned a motion picture to make them clear. The resultant four reel film, partly in color, deals with the basic laws of mechanics and how they are applied to dentistry. The material, which was drawn from diverse sources including machine shops and the physics laboratory, illustrates fundamental points in dentistry so thoroughly that opportunities to see the film have been sought by colleges and dental schools. In addition to this, the picture was screened in eighty five cities during a four month period and has been so successful in selling the product of The Dental Specialty Company that sales have been quadrupled, it is said.


Bell & Howell

A 35mm. Eyemo with special shutter for making "stills"

Mr. Mussey presents the film with a disc accompaniment and a narrative given by himself over a microphone and amplifier. Standing behind the projector and controlling the synchronization of the music and his own voice over the microphone, he is able to produce the same effect as a carefully synchronized sound on film picture. In addition to the advantages of a musical introduction and interludes, as well as the impersonal presentation of the talk, Mr. Mussey points out that he readily can adapt his lecture to special audiences and that thus the combination gives him the greatest possible flexibility.

■ *The Home of Old Style Lager* is the title of a 900 ft. 16mm. picture recently completed for the G. Heileman Brewing Company in La Crosse, Wisc., by Arthur Carl Schroeder, ACL. The picture, which is being used for general advertising purposes, shows the brew house, the bottling house, the racking room and wash house and the distribution of the brewery's product by railroad and a fleet of trucks. Florence K. Klum assisted in directing and editing this picture, which has evoked very favorable comment when projected for chapter meetings of the Master Brewer's Association of America.

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The League's new President

[Continued from page 157]

ine pioneer. He has kept pace with the development of equipment and now has general and specialized movie making tools to meet almost any need.

The League's new President is an active movie maker in every sense of the phrase. He has plentiful records of his friends, class reunions, parties and sports in a delightful series of personal reels. Each of his hobbies, from golf to riding, has its place in his footage. His more serious movie making achievements naturally have followed his major interests in life and, with his architectural film study, *Italy*, he won a place in Movie Makers Ten Best Films of 1931. Later, he made architectural and travel movies in France, Sweden, England and Germany. Last summer, when he visited Italy as the guest of the Italian Government, representing the United States, as head of the American Institute of Architects and as the personal representative of President Roosevelt, at an international architectural conference, he made charming color reels of Paestum, Pompeii and the hill towns near Rome. His outstanding architectural cine study is, perhaps, a three reel film of the buildings and monuments of Sweden, a picture in which he has captured the modern and eclectic developments in Swedish architecture in skilfully planned sequences. Excellent compositions and an appreciation of the value of human interest and genre qualities mark this subject as well as Mr. Voorhees's other architectural cine records. His films always have a lively and human element, in spite of the impressiveness of the subject matter.

The use of movies in business and professions has always interested the League's new President keenly; he has filmed many reels of the construction of buildings designed by his firm and he has made slow motion studies of construction technique. He has promoted the use of motion pictures in the training of building trades apprentices and has, himself, produced a detailed cine analysis of the operations involved in skilled bricklaying. Believing that the motion picture is an indispensable modern teaching tool, he has encouraged its use at Princeton and other colleges. Needless to say, he has a large collection of films of Princeton activities.

Some movie makers expose dozens of rolls of film to be hoarded, perhaps unedited, in film cans. Mr. Voorhees is not one of these, for he really enjoys editing his pictures for final presentation and he likes to project them for his friends. In consequence, they and he get real pleasure from his cinematographic work and his movie screenings are important

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Simplex Pockette with Kodak *f*/3.5 Fixed Focus lens	62.50	**45.00**
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Bell & Howell Filmo 70A with Dallmeyer *f*/1.5 lens, focusing mount	140.00	**62.50**
Ensign Super Kinecam Turret with Cinar *f*/2.6 lens, focusing mount	225.00	**85.00**
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DeVry Model D with 250 watt lamp and case	110.00	**35.00**
Bell & Howell Filmo with 200 watt lamp, oval base and case	190.00	**52.50**
Willoscope Jr. with 200 watt lamp	34.50	**19.50**
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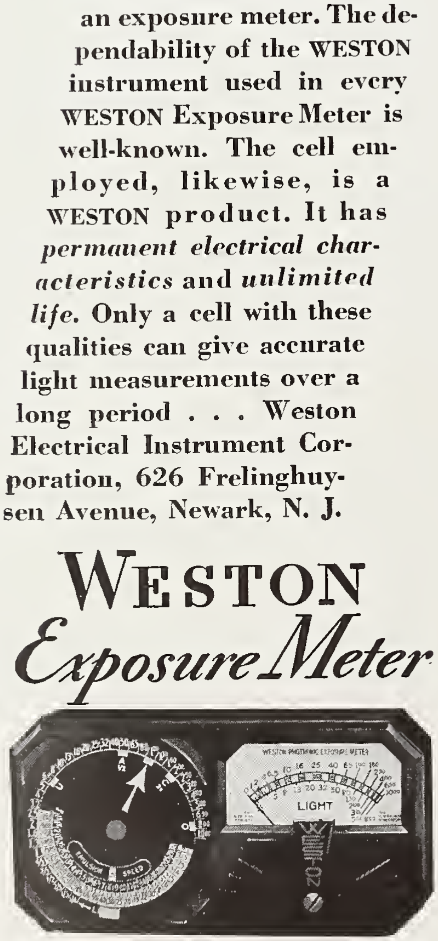

and delightful features of his home life. He has worked out an easy and gracious social facility in showing them, for he never allows films to become a grim business that monopolizes what might, otherwise, be a social occasion of restfulness and simplicity. Instead, he chooses his pictures with regard to the interest of his guests and offers them in an informal but efficient way, with the result that his movie presentations are a frequent and welcome thing and a natural and easy part of most gatherings at his city and country homes.

Mr. Voorhees has considered and discussed the art of the cinema with the same keen, analytical and creative thinking that he has applied to architecture. He is thoroughly conversant with the cinematic idiom. While he is, personally, more concerned with recreational and documentary forms of movie making, he has great sympathy with cinematic experiment, has engaged in it and encourages it. In his own film library, he has reduction prints of landmarks of motion picture art, such as *Grass* and *The Fall of the House of Usher.* To present his esthetic theories and understanding of motion pictures would require a lengthy discussion, but it is enough to say that he can contribute to the League in this field with unusual acumen.

Stephen F. Voorhees, in his mid fifties, is full of youthful vigor and energy. An eminent member of his profession, a true citizen of the world and an accomplished movie maker in many fields, Mr. Voorhees, as its President, brings new distinction to the Amateur Cinema League. His wide and profound organization experience and his brilliant executive ability insure for us a sound and firm direction of the League's practical affairs, while his capacity for new and original thinking promises the creative policies that are so essential to all important progress.

Windy weather

[Continued from page 155]

angle. A shop sign swings in the wind.

Scene 11. *Medium shot.* Upward angle. Street corner. A girl walks suddenly around corner into wind. A gust whips her hair and clothing backward, and in coming around the corner she walks into strong sunlight.

Scene 12. *Long shot.* Upward angle. Red filter. Tilt the camera up the side of a skyscraper to show the dark sky with gathering cumulous clouds above the building. Dissolve to:

Scene 13. *Long shot.* Tips of Lombardy poplars in a city park in bright sunlight. Tilt slowly downward to show blowing branches of the trees in intense light, by this same process bringing some nearer branches into focus in medium closeup. Dissolve to:

Scene 14. *Extreme closeup.* Bright poplar leaves blowing almost directly against the lens of the camera.

Scene 15. *Medium shot.* A fountain, back lighted, and in what is by this time quite a strong wind. The spray is being dashed outside the confines of the fountain basin and carried as spindrift along with the wind.

Scene 16. *Extreme closeup.* Grass blades nearby, under a light wind. Drops of water are clinging to them.

Scene 17. *Closeup.* Bushes near the fountain, in motion from the wind, with their leaves shiny and dripping wet.

Scene 18. *Closeup.* The very edge of the fountain basin. The small ripples on the surface of the water show, with a few leaves floating about in an agitated way. Dissolve to:

Scene 19. *Medium shot.* A squall on a lake or other body of water, such as a river or park pond. An oar comes into the frame, and then a rowboat, with a man pulling hard on the oars against the current. The man's shirt is flattened against his body by the wind, and a girl in the other end of the boat is bailing out water with a tin can and is looking anxiously into the direction of the wind.

Scene 20. *Extreme closeup.* Profile of the girl looking into the direction of the wind. Her hair is flying and her face is tilted upward. Try for a dramatic lighting effect. (This shot could be made on the shore if the sky is the only background.)

Scene 21. *Closeup.* The man's arms and shoulders, pulling against the current, showing the ripple of wind on his shirt sleeves and hair.

Scene 22. *Extreme closeup.* The man's eyes, facing the light, looking at the sky.

Scene 23. *Long shot.* Upward angle, following the line of the man's gaze. A few gulls, flying into the wind and carried back off their course by drift, spiraling and circling low over the water. Use heavy filter. Dissolve to:

Scene 24. *Long shot as in 23.* A plane silhouetted against the sky.

Scene 25. *Near shot.* Upward angle. (Use a two or three inch lens.) The wind sock at an airport, on top of a hangar.

Scene 26. *Long shot.* Looking down the length of the flying field, which is full of blowing dust. A plane banks into the wind and comes to earth toward the camera.

Scene 27. *Medium shot.* The ship is near the edge of the field, and the propeller blast, as the plane turns to taxi toward the hangar, throws up a sudden cloud of dirt to add to the dust already in the air.

Scene 28. *Medium shot.* The usual flying field crowd of onlookers, their clothes being blown by the wind and perhaps by the blast of the propeller, if that can be arranged.

Scene 29. *Closeup.* A few individuals in the crowd who are the most thrown off their balance.

Scene 30. *Long shot.* The length of the flying field, deserted. Cloud shadows are rolling across the ground swiftly. Use eight frame camera speed, if necessary. Slow dissolve to:

Scene 31. *Medium shot.* Looking along a country road. The grass is blowing hard and dust is being picked up. A tumbleweed comes blowing toward the camera and rolls out of the scene.

Scene 32. *Long shot.* Another view of the road, with a simple cottage or farmhouse in the middle distance.

Scene 33. *Medium close.* A weather vane in the form of a rooster on top of the house or barn. It moves slightly to show veering of wind. Try for an upward angle with a cloud background and some movement in clouds.

Scene 34. *Semi closeup.* A rooster on the fence, ruffled feathers in the wind.

Scene 35. *Medium shot.* Chickens scuttling about in the dust of the yard.

Scene 36. *Semi closeup.* Curtains fluttering at the open window of a house.

Scene 37. *Semi closeup.* Upward angle on clothes, blowing in the wind, on a clothesline. Slow dissolve to:

Scene 38. *Medium shot.* Upward angle of kite fluttering on power line, the tail tangled and whipping in the breeze. Get steel tower or pole at side of frame.

Scene 39. *Long shot.* Slight downward angle, from hilltop. Long line of poles with power wires, or steel power line towers, glinting in what is left of the sunlight. The sky behind the towers is very dark. Use heavy filter.

Scene 40. *Long shot.* Directly at sky. The clouds have become storm clouds, thick and turbulent—low lying nimbus clouds. Use fast motion to speed up clouds. The storm breaks.

Scene 41. *Long shot, same as Scene 39.* Hilltop with power line towers or poles, blurred by the cloudburst.

Scene 42. *Long shot.* Looking down the road at farmhouse in rain. Lights show in windows. Slow dissolve to:

Scene 43. *Closeup.* City street, pelted by the rain, with twigs and small branches lying all about. A girl's feet come from behind camera into frame. They are splashing along unwillingly, as though she were being pulled.

Scene 44. *Semi closeup.* The girl, in a white raincoat, being hurried along by the wind and rain, trying to keep an umbrella from turning inside out.

Scene 45. *Closeup.* Gutter grating, with rain running deep.

Scene 46. *Long shot.* Downtown street, blurred by wind and rain. The people carry dripping umbrellas.

Scene 47. *Closeup.* Traffic signals swaying in the high wind.

Scene 48. *Closeup.* Gutter again. Water is diminished to slight trickle.

Scene 49. *Closeup.* A piece of newspaper slowly circling in the air, with shifts and turns, subsiding to the wet pavement, from which it can be seen that the rain has ceased.

Scene 50. *Long shot.* Upward angle. Up the side of a tall office building, to the higher windows facing west, which show a reflected blaze of sun. Continue upward tilt to sky. Light filter. Clouds are breaking up into fragments and light fleecy bits and are traveling at a calmer speed, with clear patches of sky showing. Cut to:

Scene 51. *Medium shot.* Weather bureau signal tower against the sky. Signals are set for fair weather ahead. Fade out.

An end title, the same as the introductory one, with spinning world set against a dark background.

Sport film technique

[Continued from page 156]

the camera is large with respect to the distance from the camera to the subject at its nearest position. For example, if the action takes place through twenty feet in the direction in which the camera is pointing, and the camera is twenty feet from the subject at its nearest distance, then the subject appears twice as large at its nearest distance as it will at its greatest. If a longer focal length lens is used and the camera is placed more than twenty feet away, then the change in magnification is decreased. A tripod should be used for all shots, but it is most necessary with telephoto lenses.

If "panoraming" is necessary to follow action, it should be done at an even rate, causing the point of interest to remain in a fixed position in the picture field. The major fault in sport motion pictures is poor, jerky "panoraming" in which the subject is not continuously centered. A substantial, smooth working tripod head is essential.

The following suggestions may aid anybody making a first attempt to photograph sports. The camera speed should not be less than normal for any scenes and should be twice normal for the slower body movements, as in sprints, football, diving, etc. It should be four times normal for faster movements, as in tennis, golf, kicking a football, etc. This increase in camera speed slows the motion so that the eye may follow it on the screen. The shutter opening, if adjustable, should always be as small as correct exposure will permit. A lens should be used with a focal length that will make the area of interest fill the picture frame or make the participant at least a quarter of the frame in height. These points, of course, may be altered to suit the conditions when experience shows that changes are advisable.

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The League's second in command

THE new vicepresident of the Amateur Cinema League, Lee F. Hanmer, is known, among those interested in leisure time activities, as a pioneer in American recreation. A sociologist of international standing, Mr. Hanmer has devoted all his extremely active adult years to the development of recreational activities from a picturesque and puzzling new sociological incidental into an increasingly important and fully accepted social factor.

In his mid sixties now, Mr. Hanmer, after studying at Cornell (Ph. B., 1900) and New York University, entered what was then known as "industrial welfare work," in the mining district of Arizona, taking with him the experience he had gained as general secretary of the Y.M.C.A. at Cornell University where he was also varsity oarsman. Following three years in industrial recreational work, there came four years of physical training and athletic organization for the New York City schools. Mr. Hanmer then accepted the secretaryship of the Playground Extension Committee of the Russell Sage Foundation and was loaned for two years to serve as the first field secretary of the Playground Association of America—now the important National Recreation Association. He later was associate director of the Department of Child Hygiene of the Russell Sage Foundation and became, in 1912, Director of the Department of Recreation of that organization, which office he now holds. Mr. Hanmer is also director of the recreation section of the Plan of New York and Environs.

In the World War, Mr. Hanmer was a member of the War and Navy Department Commissions on Training Camp Activities, which directed the recreation of service men in the American army and navy. Later he served on the White House Conference on Child Health and Protection and the President's Conference on Home Building and Home Ownership. He is secretary of the Committee for the Study of Music in Institutions, a member of the City Recreation Committee of New York, a member of the Planning and Advisory Committee for W.P.A. professional projects in Greater New York, a member of the National Advisory Committee of the American Youth Commission and a director of the Sportsmanship Brotherhood. He was the first secretary of the Boy Scouts of America.

Blackstone Studios

Lee F. Hanmer, vicepresident of the Amateur Cinema League

Mr. Hanmer's interest in the recreational importance of motion pictures induced him to accept the chairmanship of the Committee on Public Relations of the Motion Picture Producers and Distributors of America—often known as the "Will Hays office"—which position he held until Mr. Hays established a regular department to carry on the work which Mr. Hanmer had initiated and which his sound judgment had so aided.

To a man with Mr. Hanmer's background of recreational pioneering, his standing as the senior recreational counselor of the United States and his experience as an advisor to the motion picture industry on the social uses of its product, the proposal of an organization of amateur movie makers came as a genuine challenge to his interest and his service. He quickly saw the great possibilities of movie making as a new recreation and believed that it would bring to leisure time occupations a distinct contribution. At the same time, he saw that personal filming would liberate the movies for social uses they had not hitherto been put to.

Mr. Hanmer's contribution to the Amateur Cinema League, in the ten years of his service with it, has been so varied that it is difficult to attempt a catalog. He brought about an early relationship of confidence for the League with sociologists and recreationalists, which established our organization with them as one of dignity and serious worth. He aided in the early relations between the League and the theatrical motion picture industry which has a high opinion of his judgment. He has been the means of bringing to the League for counsel and advice the leaders in education, religious work and social service. Above everything else, Mr. Hanmer has served the League mightily in providing wise guidance, from his broad experience, in the complex problems of setting up effective service to members, establishing relationships between the League and other bodies interested in amateur

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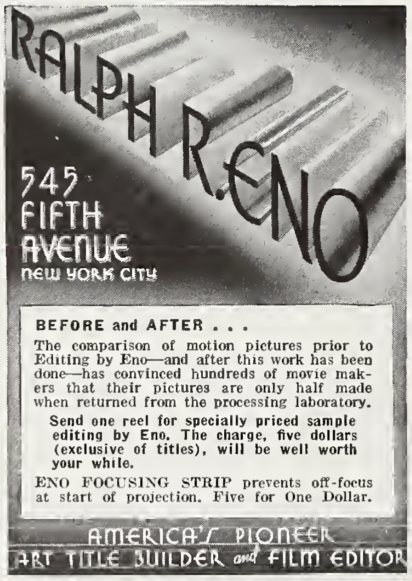

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movies, adopting policies that would emphasize service and would subordinate organization machinery and in keeping the thought foremost that movie making is recreational more than technical and human more than mechanical.

Lee F. Hanmer brings to the vice-presidency of the Amateur Cinema League a rich fund of experience in executive work of high quality, a clear concept of the social values of this new recreational medium and a practical judgment and knowledge of organization procedure that will insure to us continuous counsel of the highest type.

R. W. W.

Stunt titles

[Continued from page 153]

The chief point is to use the proper equipment to fit the picture.

A couple of years ago, I titled a reel of football pictures. I took a closeup still picture of a football and made a sixteen by twenty enlargement for each title—not a normal print but quite flat as mentioned before. I hand lettered the titles on the enlargements.

Last year, after I purchased my new advanced camera, some friends and neighbors made a mystery picture. I, of course, wanted to show off a little by utilizing all the camera tricks possible. We all had a part in writing and planning the picture and we had everything disappearing and reappearing so fast that the picture turned out to be a comedy. However, to obtain title backgrounds in keeping with the story, we took a still picture of a gazing crystal held between two hands. We made five by seven contact prints on a soft grade of paper, then we wrote our titles on the picture of the crystal with invisible ink. Next, we placed a metal tray over an electric toaster, put the prints face up on the tray and turned on the toaster, a little later starting the camera. Presto! the titles appeared before the camera from out of the crystal. This gave an element of mystery and was very much in keeping with the story. Since the invisible ink, on development, is brownish in color, we used a Wratten X2 (green) filter and panchromatic film to obtain contrast.

A friend of mine, who had made a film on the story of photography, asked me to suggest a suitable way of titling the film. I suggested having the titles develop up on paper in a developing tray. He made all the titles on an imitation leather or morocco paper; he then made eight by ten still camera negative pictures of each title and next a normal print from each negative. The prints were bleached out with a bleaching solution composed of five percent mercuric chloride and one half percent of hydrochloric acid, then they were washed and dried out and kept in darkness to prevent developing out by light. A setup of an eight by ten tray, containing a solution of one percent hypo for the redeveloper, was arranged and properly lighted. The titles, of course, are invisible and can be redeveloped in light. The prints were immersed in the redeveloper (or hypo solution) and redeveloped with the camera running. The results were excellent and most effective. The titles appeared actually to be developed in front of the camera. The rate of development can be controlled by the strength of hypo. One half percent will develop slowly, three percent quite rapidly.

Recently, I assembled a 400 foot reel of flower, garden and scenic pictures made on Kodachrome. I wanted something a little different in titles and I tried a number of ideas, but none seemed to "click." Finally, the idea occurred to me to use Plasticine and to make a relief title. I purchased three pounds of green colored Plasticine and made a wooden frame, eight by ten inches and one inch deep, to hold the Plasticine. I smoothed out the top surface with a ten cent store rolling pin, having oiled the rolling pin with glycerine (linseed oil could be used) to obtain a smooth surface. I borrowed a set of 18 point broad faced type (narrow faced type is not legible) from a local printer and pressed the metal type letters into the Plasticine to spell out my titles. After the title was completed, the border appeared too smooth, so I tried two stunts, both of which are satisfactory. One was to use a wire brush, patting the surface of the Plasticine to give it a roughened surface. The second was to press a piece of copper window screening down gently on the surface by going over it with the rolling pin, thus giving a screen or cross line effect. I lighted this title with light from one side only and placed the two flood lamps about fifteen degrees to the left of the camera to add a small shadow to the letters and to make them stand out in bold relief.

White or colored chalk can be used to print titles by hand on a blackboard, and colored wax crayons are effective on plain or mottled paper. Wax can be placed on glass, and then one can heat the glass so that the wax will melt to end the title.

Many times, titles can be made more forceful by tinting or dye toning the film with a particular color. A red tinted title before a fire scene suggests excitement; a violet or dark blue suggests a night or twilight scene; a blue green creates a cool atmosphere or a quiet, restful frame of mind.

All the titles mentioned thus far can be made with any 16mm. or 8mm. camera. However, with the more advanced types, it is possible to make all sorts of trick titles. The single frame device per-

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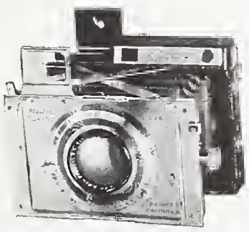

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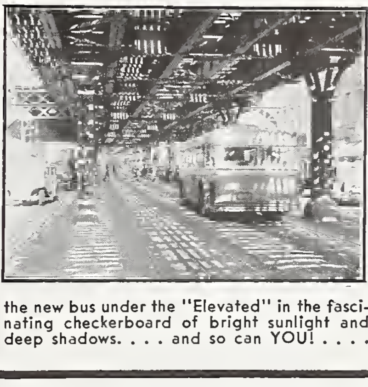

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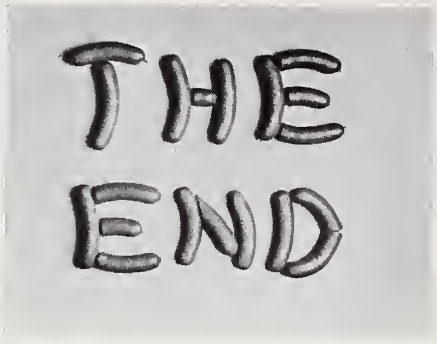

A title made of frankfurters for a picture of a picnic

mits effects, such as the letters jumping in, one at a time. The bounds of one's imagination are the only limit to possibilities for double and multiple exposure.

Many of the types of titles I've mentioned can be made out of doors in daylight. The invisible ink, photographic background, "developing up" and Plasticine titles all are more uniform if made with artificial light. I use two flood lamps in reflectors about two and a half feet away. For Kodachrome titles, I use the artificial light filter at *f*/1.9 to *f*/2.8; if the titles are dark colored and contrasty, *f*/1.9; if light and flat, *f*/2.8. The exposure on panchromatic film with these conditions would be *f*/5.6; with supersensitive, about *f*/8; with regular safety, about *f*/4.

When printing your own titles, it is well to keep the legibility of your titles in mind. A broad face of type, or a letter of bold character, is read more easily than the thin, slim letters. Broad letters give better contrast, whereas thin letters have a tendency to fill in, which reduces contrast.

When a title first appears on the screen, it requires a fraction of time for an observer to realize that it is a title and to find the starting line. Then time is required for reading. It is obvious that this rate of accommodation and speed of reading varies with each individual and that, therefore, sufficient footage must be allowed for the slowest reader. Here is a table of title footage lengths:

1 to 3 words	1½ feet
4 to 6 words	2 feet
7 to 8 words	2½ feet
9 to 10 words	3 feet
11 to 12 words	3½ feet

One half foot of film can be exposed for every additional two words. This, of course, applies to average length words of from four to seven letters. Two words of one or two letters each can be counted as one and a twelve or fourteen letter word is counted as two.

The amount of time that one invests in titling can be controlled by the type of title selected. The ready made variety is by far the quickest and least trouble. All one has to do is to write the titles and to splice them in, after they come back from the title service. Or the splicing can be done at the factory if desired. The Plasticine title requires a lot of time, likewise the invisible ink and "developing up" type. Of course, it's possible to plan and to arrange things so that the work can be done quickly.

I've had a tremendous amount of pleasure out of titling my films, and the results on the screen more than justify any bother in making the titles. My advice is to make a start at titling your films if you have not already done it. The first few may seem a little difficult, but the real pleasure comes after you have found out how to do it. I wish you every success.

Sincerely,
J. F. Holden

Things people ask us

[Continued from page 152]

passes the lens twice, being rewound for the second passage.

How do you speed up or slow down action on the screen, when the actors don't do it?

Action will look natural on the screen if it is photographed and projected at the same number of frames in each second, for both the taking and the showing. But if you take only eight pictures a second on the film and then project them at the rate of sixteen pictures every second, the action will appear twice as fast on the screen. Conversely, if you film sixty four pictures a second and if you project only sixteen of them every second on the screen, the action will appear only one fourth as fast, when it is projected. It looks miraculous as we view the screen, but the principle is extremely simple.

The clinic

[Continued from page 159]

Positive titling ■ Making successful positive titles depends on the proper exposure and development of the film. A "snappy" contrast developer used at the correct temperature and for the right time is essential. No tests can be made for exposure until this condition exists. It is then an easy matter to run off a test strip at various openings in order to find the proper exposure. It is important to prevent fog by using a red or dark orange light when handling the film. If the edges of the film are not clear after fixing, it is a sign that fogging has taken place somewhere in the handling.

No filter ■ A new type of flood bulb made of blue glass permits taking color film without the customary incandescent light filter. The most important aspect of this for many movie makers is that a larger lens opening may be used, thus making it more convenient for users of *f*/3.5 lenses to shoot interior scenes. Amateurs who work with exposure meters must determine from the information supplied by the manufacturer of the meter the correct speed or index factor to use when the incandescent light filter is omitted. Roughly, this filter has a factor of four times, so that two stops will just about take care of the difference in case the meter speed is not at hand.

Photoscop ■ The following table has been supplied by Photo Utilities, Inc., distributors of the Photoscop Exposure Meter, to facilitate the use of that meter in connection with Kodachrome filming. The directions apply when the film speed indicator is set for 14 degrees Scheiner.

Kodachrome in daylight	use shutter speed of 16 frames a second.
Kodachrome in incandescent light (without filter)	use shutter speed of 1/25
Kodachrome in incandescent light (with filter)	use shutter speed of 1/10

Magazine cameras ■ Movie makers who operate magazine loading cameras, in which the magazines are inserted from the rear of the camera, will find many uses for a dummy magazine which is so built as to permit scanning the actual lens field from the rear.

Such a device, constructed of fiber or sheet metal, should be arranged to fit snugly in the magazine compartment. A small piece of translucent film leader or ground glass is fixed in an opening in the front end and placed so as to come directly behind the camera gate. It should be located carefully in the regular plane of the film in a magazine. Room should be left for the shuttle tooth to move. An aperture at the rear of the dummy magazine will enable one to scan the image thrown by the lens on the ground glass or film leader screen. An adjustable tube with a suitable arrangement of magnifying lenses may be added to enlarge the image. At present, I am using a finder lens from a cheap box camera for the purpose.

This device may be used for many purposes, such as centering title cards without the aid of a regular titler and determining the exact limits of the field area of any lens. When the camera has been set, the regular film magazine may be substituted and the shot completed, the movie maker having exact knowledge of the field being covered.

If one does not wish to take the trouble to construct a permanent dummy magazine, he may obtain relatively satisfactory results by cementing about an inch of translucent leader strip across the end of a six inch paper tube, which is rolled up to about three quarters of an inch in diameter and inserted carefully behind the film gate. This is all that is required for determination of field area and centering, but it may not give sufficiently accurate results where calibration or critical focusing is attempted.—*Archibald M. McIsaac.*

Wide angle ■ One of the most useful of all cine objectives is the wide angle or 15mm. lens. It is most frequently used in connection with interior filming when space is limited, but it is very valuable for ordinary movie making when it is desirable to encompass a wider field than that which the normal one inch lens covers. The shorter focal length gives greater depth of field and, for this reason, wide angle lenses are often of the fixed focus type. Just as the motion of the camera is more apparent when telephoto lenses are used, so it is decreased when wide angle lenses are employed. This feature, however, should not deter the movie maker from the grim determination to hold the camera steady.

Another useful table for the cine scrap book or card file

DEPTH OF FIELD TABLE FOR THE 3-INCH *f*4.5 TELEPHOTO LENS.

DISTANCE FOCUSED UPON.	RANGE OF SHARPNESS											
	*f*4.5		*f*5.6		*f*8		*f*11		*f*16		*f*22	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	158'-0"	INF.	134'-0"	INF.	94'-0"	INF.	68'-0"	INF.	47'-0"	INF.	34'-0"	INF.
100	61'-0"	272'-0"	57'-0"	394'-0"	48'-0"	INF.	41'-0"	INF.	32'-0"	INF.	25'-0"	INF.
50	38'-0"	73'-0"	36'-0"	80'-0"	33'-0"	107'-0"	29'-0"	189'-0"	24'-0"	INF.	20'-0"	INF.
25	22'-0"	30'-0"	21'-0"	31'-0"	20'-0"	34'-0"	18'-0	40'-0"	16'-0"	54'-0"	14'-0"	94'-0"
15	13'-8"	16'-6"	13'-6"	16'-11"	12'-11"	17'-11"	12'-4"	19'-3"	11'-4"	22'-0"	10'-5"	26'-10"
12	11'-2"	13'-0"	11'-0"	13'-2"	10'-8"	13'-9"	10'-2"	14'-7"	9'-7"	16'-1"	8'-11"	18'-6"
10	9'-5"	10'-8"	9'-4"	10'-10"	9'-0"	11'-2"	8'-8"	11'-8"	8'-3"	12'-8"	7'-9"	14'-2"
8	7'-8"	8'-5"	7'-7"	8'-6"	7'-5"	8'-9"	7'-2"	9'-0"	6'-10"	9'-7"	6'-6"	10'-4"
6	5'-10"	6'-3"	5'-9"	6'-3"	5'-8"	6'-5"	5'-6"	6'-7"	5'-4"	6'-10"	5'-2"	7'-3"

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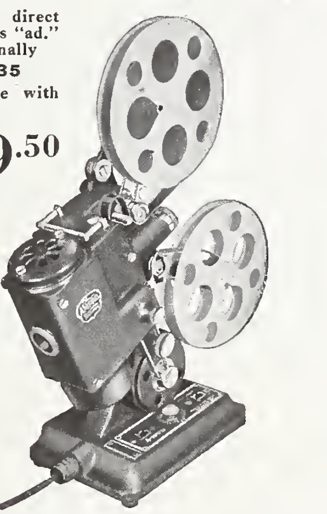

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Making cine frame enlargements

FREDERICK G. BEACH, ACL

THE process involved in making a motion picture frame enlargement (a still picture from a frame of movie film) is a relatively simple one but, because of the extreme degree of enlargement necessary, the work must be done carefully.

When one makes a frame enlargement, he is often disappointed because the resultant picture does not compare with a good snapshot as far as clearness and sharpness are concerned. In view of the tremendous enlargement, it is inevitable that there be some defects; however, with proper care in all the steps, a fairly good picture can be made from a satisfactorily sharp frame.

The proper frame should be selected on the projector by stopping the machine and studying the frame to make sure that it does not contain some undesirable movement that would scarcely show on the screen when the film is in motion. The frame should be correctly exposed and be as sharp as possible. It is a good plan to tie a short piece of thread through the perforations alongside the chosen frame in order to identify it later on. It will not be necessary to clip the film.

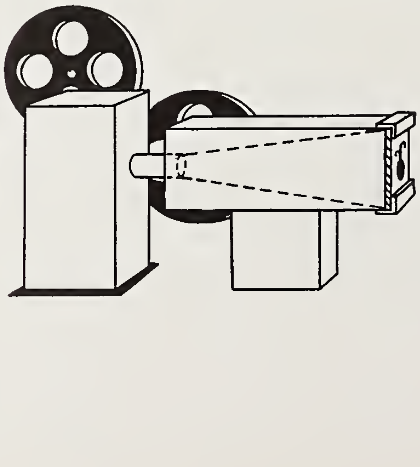
If the amateur does not have an enlarger made for the purpose, he can make use of his projector. At first glance, it might seem as if the picture could be projected right on enlarging paper in the same manner that an enlargement from still negatives would be made, but one soon realizes that this method would give a negative image on the paper, since the film in the projector is a positive. It is therefore necessary to make a negative by projection and, from this negative, the final contact prints or enlargements can be made. One of the best materials for making this negative is the slow lantern slide plate. These can be purchased for very little at any photo supply store in packages of a dozen.

The first step in making the negative is to arrange the projector with the film threaded so that the frame desired is in the gate. Set the machine for still picture projection and throw the image on a small drawing board which will serve as a screen. Adjust the position of the board until the image is slightly smaller than the size of the lantern slide plate. The next step is to cut a piece of white cardboard the same size as the plate and to fasten it with thumbtacks to the drawing board so that it can be removed and the plate substituted for it when one is ready for the actual exposure. This cardboard serves as a screen and enables centering and focusing to be done exactly in preparation to making the exposure. When the image is as sharp as possible, shut off the projector light and all lights in the room. A red dark room light can be used without danger to the film. Substitute the plate for the cardboard and throw a black cloth over the projector to prevent light from reaching the plate other than that coming directly from the projector lens. Snap the projector light on and off as quickly as possible for a test exposure. The lantern slide plate is then developed, fixed and washed according to the maker's instructions. Inspection of the resultant negative will show whether the exposure should be increased or decreased. If one is not capable of judging the quality of a negative, it is best to consult somebody who is familiar with photography.

When the best possible negative has been obtained by this method, the processes which follow are exactly those used in still photography. A contact print can be made or the negative may be placed in a regular enlarger and brought up to the desired size. As a rule, it is not wise to attempt anything larger than about five by seven inches.

Many workers prefer to use a rough surfaced paper for making the final prints, because it minimizes the grain which is bound to show in such extreme enlarging, but of course if the frame is to be used for reproduction in a magazine, it should be made on glossy paper. If the movie maker wishes to make himself a motion picture frame enlarger which will aid in obtaining results with a minimum of trouble, he can build one as shown in the sketch. It is simply a box with a hole in one end for the lens of the projector. This hole should be made a close fit by lining the edges with felt to prevent light from entering. The other end of the box is equipped to hold the lantern slide plate interchangeably with a pane of ground glass. A strip of light angle tin, top and bottom, will do this. The ground glass is used for focusing from the rear in the same manner as in the case of a still camera. In fact, if an

A handy motion picture frame enlarger is easy to build



old plate camera of about a four inch by five inch size can be obtained, with ground glass and plate holder and without a lens or shutter, it will make an ideal enlarger. Simply place the camera before the projector, with the lens of the latter in the position of the camera lens. Project the picture on the ground glass panel for focusing. The panel is then changed for the plate holder and the exposure is made as described above. The advantage of this setup is that it does not require a dark room or covering the projector to prevent stray light from falling on the plate.

Making things move

[Continued from page 161]

kles. When deep shadows are desired—as in moving light shots—the use of light colored cloth is essential, although white should be avoided. Light blue or yellow photographs satisfactorily in black and white for this purpose, and contrasts will not be as harsh as with white. For snow or desert scenes, two or three pounds of table salt will be ample for fashioning mounds and drifts.

In miniature work, the important thing is to see that the effect of true perspective is given by having objects supposedly far away scaled down in size. If one shrinks at the idea of modeling houses and barns, an assortment of paper houses, barns, stores and garages may be obtained from department stores at nominal cost. These have an added advantage in that they may be used to stage miniature conflagrations which will look surprisingly real on the screen.

Locomotives, fire engines, automobiles, racing cars and other wheeled toys from the local five and ten cent store will appear most realistic as they careen along a painted roadway at breakneck speed. Actually, they are hitched to the camera arm by means of a horse hair, and the camera arm is moved around the table at the desired speed.

The simpler shots are those in which one or more objects are placed in harmonious composition and the camera and lights rotated alternately or in unison, as the camera clicks. This simple treatment is capable of many variations. Shadows can be made to advance gracefully across the picture area; flat front lighting may be changed gradually to plastic side lighting, after which the lights continue to recede to form beautiful back lighting. Of course, there will be an accompanying crisscross of shadows on the table covering.

The table provides the only means of effectively photographing small wares, such as displays of jewelry, silverware, dishes and fabrics. Interest is commanded and held by the smooth, graceful motion. Shots of breathtaking beauty can be made of pieces of cut glass on a

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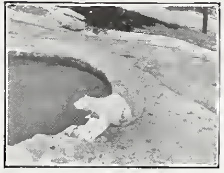

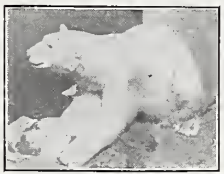

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dead black background, by allowing the camera to remain motionless while both lights are rotated in opposite directions. The changing play of light on the facets of cut glass is enhanced by the black background, and the shooting points of light transform the pieces into living, twisting gems. When color film is used in this work, magnificent studies can be produced, and the movie maker who has undertaken a color record film of art objects will find these effects remarkably useful.

The realism and beauty of the new color process make one want to try closeup shots of the attractively colored objects around the house. Such scenes would be static and without movie interest unless motion were imparted to them in some way. Simply put them on a piano stool or move the lights for the scene, and what would otherwise be a still shot will become a real movie.

"Zoo" shots

[Continued from page 151]

Mountains to show deer and foxes and, to the South, to show the alligators. The main tour continues southward through Mexico, Central America and South America. Here, in succession, one finds the jaguar, the anteater, rhea, tapir, armadillo and the monkeys of the jungle. Finally, one sees the llama and alpaca of the Andes.

From here, we skip across the ocean to start in Africa, which is richest in the variety of its animal life. Beginning in the north desert region, we think first of the camel, then the ostrich and hyena and, finally, the crocodiles of the Nile. Going south along the west coast, the region inhabited by gorillas, mandrills and smaller monkeys is found. Next, turning eastward to South Africa, in its central region, many interesting animals are found. Here there are the hoofed animals of the plain, the eland, koodoo, wildebeest, zebra and giraffe. With these, of course, are the animals that prey on them, the lions and leopards. The great pachyderms, the elephants, rhinos and hippopotami, also live in this region. Then one can go north again through Arabia, the home of the dromedary, and to India, with its elephants, wild and tame, and the dangerous tiger, buffalo and cobra. Heading southeast, one visits the Malay Archipelago to present pictures of the great orang outang, and then would come Australia with its strange assortment of beasts. Outstanding among them are the kangaroos, the emu and the teddy bear like koala bears. From here we continue to the antarctic, ending our trip diametrically opposite from the starting point. To greet us at the end of our imaginary journey are, of course, the dignified, friendly and well dressed penguins.

These suggestions include animals that probably are not represented at any one "zoo." However, if the plan appeals, one could build up the material in the course of time by visits to a number of gardens. When filming abroad, don't neglect the "zoo," because you will find amazingly rich material in all European countries. If an undertaking of smaller scope is desired, then one easily can adopt this treatment for use with any number or assortment of animals, depending upon those available and the special interests of the photographer.

(Editor's note: Neither movie making nor still photography is allowed in the New York Zoological Park, in New York City, without a special permit, which we understand is given only under very exceptional circumstances. However, other "zoos" and collections of animals are available to movie makers in the metropolitan area.)

News of the industry

[Continued from page 160]

33rd Street, New York City, has recently been accepted by Karl A. Barleben, jr., F.R.P.S. Mr. Barleben has had wide experience in cinematography and in many branches of photography, including studio and candid camera work. He is well known as an author on many photographic subjects and has an extensive background of experience which he will bring to the direction of instruction in the New York Institute of Photography and Universal Photographers, Inc.

Film book ■ An interesting little book, fully illustrated, describing his 16mm. and 35mm. silent releases, is now available from Guy D. Haselton, 7901 Santa Monica Boulevard, Hollywood, Calif. Known as *Travelettes*, these films present outstanding cinematic records of natural beauty.

Disc sound ■ A new and improved line of apparatus for making sound on disc records of the better quality is now being imported by the Sound Apparatus Company, 150 West 46th Street, New York City. By the use of this equipment, which is reasonable in price, it is claimed that it is possible to produce, in 78 or 33 1/3 speed ratings, records which measure up to the standard of regular commercial discs. Projectionists who own double or single turntable reproducers for movie sound accompaniment may be interested to learn of this method whereby their own spoken commentary or special music may be recorded on disc. The Duralotone record, a product of this firm, enables the recording to be made in a waxlike substance, which is later hardened by baking.

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Amateur Cinema League, Inc.
420 Lexington Avenue, New York, N. Y.

The League moves to new quarters

On March 30, the Amateur Cinema League, Inc., and its magazine, Movie Makers, were installed in new offices in the Graybar Building, at 420 Lexington Avenue, New York, N. Y. The new telephone number is MOhawk 4-0270.

In the new offices, the League and Movie Makers have considerably more space and better facilities for business operations. A larger, specially planned projection room for silent and sound movies has been incorporated in the new space and many improvements have been made in the arrangement of offices to give better service to League members who call to consult the staff.

This move has special significance in the history of the League, for the last official act of Hiram Percy Maxim, the League's first President, who died February seventeenth, was to sign the lease for the League's new quarters.

Keystone

The Graybar Building at 420 Lexington Avenue where the new ACL offices are located

With the growth of the League's services to its members and in the membership itself has come a large increase in publishing, mailing work and record keeping. The new space is designed to meet the needs that this has entailed and to allow room for further growth.

League members who visit New York are cordially invited to inspect the new offices. Bring some film for the consultants to view and try out the new projection room!

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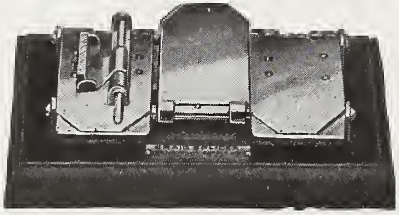

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Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* MOVIE MAKERS.

■ BASS CAMERA CO., Chicago, Ill., has a 16mm. rental library containing both silent and sound on film subjects and a catalog is available on request.

■ BELL & HOWELL CO., Chicago, Ill., offers rental sound subjects as follows: two single reels of 16mm., *Life in the South Seas* and *Life Under the South Seas,* photographed and narrated by Arthur C. Pillsbury; *Ikpuk, the Igloo Dweller,* one reel, by Richard Finnie.

■ EASTIN 16MM. PICTURES, Davenport, Iowa, has a rental library catalog of silent and sound subjects. Among the sound films are listed *Roaring Roads, Eat 'Em Alive* and *Little Men.*

■ EASTMAN KODAK CO., Rochester, N. Y., is the distributor of Cinegraphs on both 8mm. and 16mm. and will be glad to send a catalog in answer to a request.

■ GARRISON FILM CO., New York City, offers, among sound films, Rene Clair's *A Nous La Liberte* for rent.

■ J. H. HOFFBERG CO., New York City, has the 16mm. sound film, *The Reckoning,* with Sally Blane, Edmund Breese and James Murray.

■ KODASCOPE LIBRARIES, INC., New York City, has the following 16mm. sound on film rental subjects: *X Marks the Spot,* a seven reel feature, with Lew Cody, Sally Blane, Fred Kohler and Wallace Ford; *Movie Mad,* a one reel Flip the Frog cartoon; *The Toy Shop,* an animated color film in one reel.

■ LEWIS FILM SERVICE, Wichita, Kans., has for rent the 16mm. silent film, *Romola,* featuring Ronald Colman, William Powell and Lillian and Dorothy Gish.

■ NU-ART FILMCO, New York City, has the 16mm. sound film, *Swiss on White,* a one reel subject of winter sports, featuring Sonja Henie. *Beyond Bengal,* seven reels, and *Last Days of Pompeii,* six reels, also are offered in sound.

■ PARK CINE LABORATORY, Brooklyn, N. Y., has Charlie Chaplin comedies in 8mm. and 16mm. silent film. *Charlie Butts In* and *The Knockout* are now available.

■ ERNEST M. REYNOLDS, Cleveland, Ohio, has 100 ft. 16mm. scenic subjects for sale. *Heart of the Adirondacks* and *Lookout Mountain* are offered among others.

When you film the pets

[Continued from page 154]

feet or more from the ground and shooting directly down on the traveling subject. You now will have your picture well under way and the thread of interest will have been created.

Now you will want to introduce some other animals (perhaps barnyard fowl) into your picture to provide characters for some of the experiences your little actor will encounter on his travels. I have found that most unusual action can always be obtained by having appetizing foods for each type of animal placed together in one receptacle—for example, tender lettuce for a rabbit and grain for baby chicks. When they get together to eat, they do many humorous and entertaining things. Keep your camera ready, for you never can tell just what will happen when their appetites are replenished. Or again, they may resent dining together, and a quarrel will ensue or they may take a notion to play. No matter what happens, don't fail to get it, for that's where the punch will come in your story.

A bit of humor can be obtained by having your star actor try to cross a stream on a log, which has been so arranged that you can tip it with your hand. The end of the log must extend out of the picture so that the hand manipulating it will not be seen. Just as the animal gets midway on the log, turn it a trifle, throwing the animal into the water. The subject's own reactions to this sudden mishap will provide an amusing scene.

The star actor may come upon a frog or toad at the other side of the stream. Put some sort of tempting food on the nose of the frog. Your star actor will undoubtedly approach, the scent of the food in its nostrils, and perhaps it will smell the frog's nose. This will tickle the frog's nose, causing it to leap, and thus another dramatic highlight is created.

It is most important not to forget a good closing shot. Show the star actor at its home resting, weary from its adventure and happenings. Film a general view showing home surroundings and then take a few different angles. An extreme closeup of the subject, showing sleepy eyes, would make a good closing scene.

When such shots as these are edited and cleverly arranged to emphasize the continuity, you will find, upon screening the picture, that you are well rewarded for your efforts. The exact treatment is up to your imagination and creative thinking, but it is easy because, when you are once started, one thing will suggest another as you work along with the picture.

Amateur clubs

[Continued from page 158]

report the success of *Ski Holiday in the Dellach Alps,* on 9.5mm. film, by member Josef Wallisch, which took first award in its class in the late London competitions of 1935.

Flower City elects ■ Following a recent reorganization, the Flower City Cinema Club, in Rochester, N. Y., has announced new officers, as follows: Dr. John P. Schreiber, president; Edward Saladin, vicepresident; Mrs. Albert Groth, secretary; Mrs. Evelyn Saladin, treasurer. Charles Snell will serve as custodian of the club's films and properties. With the coming of more clement weather, the club plans a series of outings which will culminate in a competition for the best film made on these occasions.

Boston ballots ■ Officers for the new year have been elected and announced by the Boston Cinamateur Club, in Massachusetts, as follows: Edwin Ahlin, president; Joseph Dephoure, ACL, vicepresident; Abraham Katz, treasurer; Albert Genaske, ACL, secretary. Harold A. Willoughby will serve as chairman of the program committee. Meetings, which are held in the Hotel Lenox, have been returned to the second and fourth Mondays of each month and are open to interested movie makers of the Boston metropolitan area. On late programs, the Boston club has seen *Another Day* and *In a Valley in the Border Hills*, from the League's Club Library, and heard a discussion and demonstration of his double turntable sound system by Herbert O. Worthley, ACL.

Mount Kisco appoints ■ In Westchester County, N. Y., new committee appointments have been announced by the Mount Kisco Cinemats, in a recent report from secretary R. F. Gowen, ACL: David Griffen, chairman of admissions, with Douglas Barrett as aid; Dr. Kenneth W. Fish, chairman of programs, with Harvey Hunt as aid; R. C. Orr, chairman of technique. Following the business session, members' films were screened and the program was rounded out with the presentation of a three reel industrial picture on brick manufacture, by Ira Merwin, ACL, a guest of the club, and of *I'd Be Delighted To!* from the League's Club Library.

Filmed at meeting ■ Out in Des Moines, Iowa, the Y.M.C.A. Movie and Camera Club has been busy with the production of a short film, *Camera Club Experiment*, according to the report of George W. Cushman, ACL, club president. Among those involved in the production were Reed Snyder, vicepresident in charge of cine activities, Fred Gracely, secretary, and G. W. Fox, who played the part of a new member. *Another Day*, *Not One Word* and *Birds of a Feather*, from the League's Club Library, were screened on a recent gala program.

Cape Town carries on ■ As it goes into its second year of activity, the Cape Cine League, ACL, in Cape Town, South Africa, is busily engaged in the production of *Star of the Veld*, its first feature length drama. The club has now closed its membership at fifty five and has behind it three completed films of shorter length. The new production was written by Comper Gray and has been scenarized in collaboration with him by Ainslie Beckett and Ralph H. Campbell. H. C. Weaver will assist these three in the technical work of direction and photography. K. N. Halliday has charge of lighting and general properties, while Ailsa Stephens and Helen Reid will look after continuity and costumes. Among the leading players are listed Betty May, John Hetem, Elma Adams, Audrey Olorenshaw, Ross Arnold and Eddie Greene. The officers of this active group are C. J. Sibbett, president; F. H. Chaplin and Mr. Gray, vicepresidents; Mr. Campbell, secretary.

Montreal notes ■ In Canada, members of the Montreal Amateur Movie Club have witnessed *Another Day*, by Leslie Thatcher, ACL, and *Hiawatha*, by Alan Moorhouse, ACL, in an exchange screening with the Toronto Amateur Movie Club, of which both these producers are members. On the program with these pictures were *Christmas* and *Syrup Symphonies*, by Walter Downs, ACL, of the Montreal group. Gadget Night and a demonstration and discussion of how to make a screen, by Hans Smith, were features of earlier gatherings. Marcel Baulu, ACL, scenario chairman, has reported a new production ready for casting. It is a comedy and will go before the camera early this spring.

Adopt resolution

THE Executive Committee of the Amateur Cinema League, at a meeting held following the death of the League's late President, Hiram Percy Maxim, adopted the following resolution:

Whereas Hiram Percy Maxim, founder and President of Amateur Cinema League, Inc., has passed from this life and whereas the hearts of all members of the League, its directors, committees and officers are inexpressibly saddened by this great loss of our founder, our chief and our friend, therefore be it resolved, by the Executive Committee of Amateur Cinema League, Inc., acting for the Board of Directors of Amateur Cinema League, Inc., that there be and hereby is formally recorded the inexpressible debt of gratitude owed by the Corporation, by its officers, directors, committees and members and by amateur motion picture makers in all parts of the world to Hiram Percy Maxim for his distinguished services in the development of amateur cinematography and in his direction of the Amateur Cinema League, since its establishment; and be it further resolved that this resolution shall stand as an inadequate but sincere expression of our sorrow at the death of our truly great leader; and be it further resolved that this resolution be spread upon the minutes of the Corporation and published in MOVIE MAKERS; and be it further resolved that a copy of this resolution be sent by the secretary to the bereaved family of our President, to his business associates in the Maxim Silencer Company and to the American Radio Relay League, of which he was president and founder.

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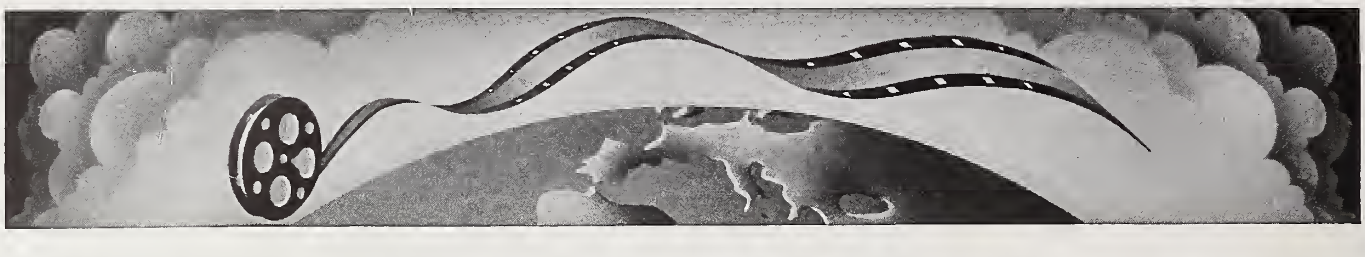

AROUND THE WORLD WITH MOVIE MAKERS

An International List of The Dealers Who Carry This Magazine—VISIT THEM!

UNITED STATES

ARIZONA

Phoenix: Sam's Cigar Store, 127 N. 1st Ave.
Tucson: T. Ed. Litt, Cor. Congress & Stone.

ARKANSAS

Fort Smith: McCann's, 714 Garrison Ave.
Little Rock: Jungkind Photo Supply Co., 114 W. Fourth St.

CALIFORNIA

Azusa: Ward's Photo Shop, 735 Azusa Ave.
Berkeley: Berkeley Commercial Photo Co., 2515 Bancroft Way.
Beverly Hills: Beverly Hills Home Movies, 417 N. Beverly Drive.
W. L. Martindale, 9477 Santa Monica Blvd.
Fresno: Laval Co., Inc., 1319 L St.
Potter Drug Co., 1102 Fulton St.
Stillman Drug Co., 2001 Van Ness Blvd.
Glendale: Glendale Camera & Gift Shop, 205 S. Brand Blvd.
A. L. Kirkhuff Camera & Movie Supply, 148 S. Brand Blvd.
Hollywood: Bell & Howell Co., 716 N. La Brea Ave.
Camera Mart, 1652 N. Cahuenga Blvd.
Hollywood Camera Exchange, Ltd., 1600 N. Cahuenga Blvd.
Richter's Photo Service. 7901 Santa Monica Blvd.
Seymour's News Service, 1101-1103 N. Fairfax Ave.
Long Beach: Winstead Bros., Inc., 244 Pine Ave.
Los Angeles: George F. Adair, 306 W. Washington Blvd.
C. & W. News Stand, 711 N. Western Ave.
Choyei-Do, 122 S. San Pedro St.
CRAIG MOVIE SUPPLY CO., 1053 South Olive St.
Eastman Kodak Stores, Inc., 643 S. Hill St.
John R. Gordon, 1129 S. Mariposa Ave.
Hollywood Home Movie Supply, 6058 Sunset Blvd.
T. Iwata Art Store, 256 E. First St.
Los Angeles Camera Exchange, 1037 S. Olive St.
Marshutz Optical Co., 518 W. 6th St.
W. L. Martindale, 610 S. Western Ave.
Peterson's Camera Exchange, 356 S. Broadway.
Schwabacher-Frey Co., 736 S. Broadway.
Victor Animatograph Corp., 2402 W. Seventh St.
Oakland: Eastman Kodak Stores, Inc., 1918 Broadway.
Oakland Camera Exchange, 376 14th St.
Sherman, Clav & Co., H. C. Capwell Bldg.
Smith Bros., Inc., 1721 Broadway.
Palo Alto: Keeble's, Box 358.
Pasadena: Flag Studio, 59 E. Colorado St.
Harold A. Parker Studio, 479 E. Colorado St.
F. W. Reed Co.. 176 E. Colorado St.
A. C. Vroman, Inc., 329 E. Colorado St.
Riverside: F. W. Twogood, 3700 Main St.
Sacramento: Kimball-Upson Co., 1030 K St.
Magneto Shop, 1020 14th St.
Frank McDougal, 1017 10th St.
San Bernardino: Arrowhead Photo Service, 610 Third St.
Oxie's, Inc., 404 E. St.
San Diego: Bunnell Photo Shop, 1033 Sixth Ave.
Eastman Kodak Stores, Inc., 419 Broadway.
Harold E. Lutes, 958 Fifth St.
San Francisco: Camera Shop, 145 Kearny St.
Duhem Motion Picture Mfg. Co., 135 Hayes St. (Civic Center).
Eastman Kodak Stores, Inc., 216 Post St.
Hirsch & Kaye, 239 Grant Ave.
San Francisco Camera Exchange, 88 Third St.
Schwabacher-Frey Co., 735 Market St.
Sherman, Clay & Co., Kearny and Sutter Sts.
Trainer-Parsons Optical Co., 228 Post St.
San Jose: Sherman, Clay & Co., 273 S. First St.
Webb's Photo Supply Store, 66 S. First St.
Santa Ana: Stein's Stationery Store, 307 W. Fourth St.
Santa Barbara: J. W. Collinge, 19 E. Canon Perdido St.
Santa Monica: W. W. Martindale, 3rd & Bway.
South Gate: Hollywoodland Studios, 9320 California Ave.
Stockton: Holden Drug Co., 345 E. Weber Ave.
Logan Studios, 20 N. San Joaquin St.
Nathan Reiman, 528 E. Main St.

COLORADO

Denver: Akin & Bagshaw, Inc., 1425 Williams St.
Eastman Kodak Stores, Inc., 626-16 St.
Haanstad's Camera Shop, 404 Sixteenth St.
Home Movie Sales Agency, 259 S. Corona St.
The May Co., 16th & Champa Sts.
Gunnison: Little Art Studio, 247 N. Main St.
Montrose: Hess Drug Store.
Pueblo: Camera Craft Shop, 503 Court St.

CONNECTICUT

Bridgeport: Fritz & Hawley, Inc., 1030 Main St.
Harvey & Lewis Co., 1148 Main St.
Bristol: Lee E. Paulmann, 252 Main St.
Hartford: Harrison Harries, 360 Main St.
Harvey & Lewis Co., 852 Main St.
Watkins Bros., Inc., 241 Asylum St.
Meriden: Broderick & Curtin, 42 E. Main St.
Middletown: F. B. Fountain Co., 483 Main St.
New Haven: Fritz & Hawley, Inc., 816 Chapel St.
Harvey & Lewis Co., 849 Chapel St.
Mongillo's, 193 Church St.
Yale Cooperative Corp., 300 York St.
Norwich: Cranston Co., 25-29 Broadway.
Torrington: Flieg & Newbury, 45 Water St.
Waterbury: Curtis Art Co., 65 W. Main St.
Wilhelm, Inc., 139 W. Main St.

DELAWARE

Wilmington: Butler's, Inc., 415 Market St.
Frost Store, 915 Shipley St.
Wilmington Elec. Spec. Co., Inc., 405 Delaware Ave.

DISTRICT OF COLUMBIA

Washington: Columbia Photo Supply Co., Inc., 1424 New York Ave., N. W.
Eastman Kodak Stores, Inc., 607-14th St., N. W.
Fuller & d'Albert, Inc., 815-10th St., N. W.
Izzy's Exchange, Inc., 905 D Street, N. W.
Robbin's, National Press Bldg., 529 14th St., N. W., opposite Willard Hotel.

FLORIDA

Jacksonville: Eastman Kodak Stores, Inc., 129 W. Adams St.
Miami: Miami Photo Supply Co., 269 E. Flagler St.
Panama City: Friendly News Stand, Rear of First National Bank.
St. Petersburg: Robison's Camera Shop, 410 Central Ave.
Tampa: Burgert Bros., Inc., 608 Madison St.
Tampa Art Supply Co., 516 Tampa St.

GEORGIA

Atlanta: Eastman Kodak Stores, Inc., 183 Peachtree St.

IDAHO

Boise: Ballou-Latimer Co., Idaho at 9th St.
Pocatello: Cook Drug Co., 333 W. Center St.
Wallace: Best & Bradshaw, 517 Bank St.

ILLINOIS

Chicago: *BASS CAMERA CO., INC.*, 179 W. Madison St.
Central Camera Co., 230 S. Wabash Ave.
Almer Coe & Co., 78 E. Jackson Blvd.
18 So. La Salle St.
105 N. Wabash Ave.
Eastman Kodak Stores Co., 133 N. Wabash Ave.
Fair, The, Dept. 93, State, Adams & Dearborn Sts.
Marshall Field & Co., Photographic Dept., Sec. 59, State and Washington.
Movie Supply Co., 844 S. Wabash Ave.
Norman-Willets Co., 318 W. Washington St.
Post Office News Co., 71 W. Monroe St.
Seamans, Photo Finisher, 1953 E. 71st St.
De Kalb: Lundberg's News Stand, 324 E. Lincoln Highway.
Evanston: Almer Coe & Co., 1645 Orrington Ave.
Hattstrom & Sanders, Inc., 702 Church St.
Galesburg: Illinois Camera Shop, 84 S. Prairie St.
Joliet: Mercier Photographic Service, 915 Prairie Ave.
Moline: Carlson Bros., 1405-5th Ave.
Oak Park: Hattstrom & Sanders, Inc., Cor. Forest & Lake St.
Rock Island: Rocklan Film Exchange, 38-40 State Bank Bldg.
Rockford: Camera Craft Shoppe, 112 N. Main St.
Springfield: Camera Shop, 320 S. 5th St.

INDIANA

Evansville: Smith & Butterfield Co., 310 Main St.
Fort Wayne: Howard Co., Inc., 112 W. Wayne St.
SUNNY SCHICK, National Brokers, Washington at Ewing.
Frankfort: A. G. Chittick, 206 E. Walnut St.
Indianapolis: R. B. Annis Co., 1505-7 E. Michigan St.
L. S. Ayres & Co., Dept. 290, 1 W. Washington St.
Wm. H. Block Co., N. Illinois St.
W. Stuart Bussey, 17 E. St. Joseph St.
H. Lieber Co., 24 W. Washington St.
South Bend: Ault Camera Shop, 122 S. Main St.
309 S. Michigan St.

IOWA

Davenport: Eastman Kodak Stores, Inc., 318 Brady St.
Des Moines: Eastman Kodak Stores, Inc., 808 Locust St.
Westing Photo Service, 3816-6th Ave.
Iowa City: Rexall & Kodak Store, 124 E. College St.
Sioux City: Eastman Kodak Stores, Inc., 608 Pierce St.

KANSAS

Salina: Bangs Jewelry Co., 114 W. Iron Ave.
Topeka: Hall Stationery Co., 623 Kansas Ave.
Wichita: Lawrence Photo Supply Co., 149 N. Lawrence Ave.
Stevensons News Stand, 125 N. Market St.

KENTUCKY

Lexington: W. W. Still, 129 W. Short St.
Louisville: Bourne & Bond, Inc., 449 S. Fourth Ave.
W. D. Gatchel & Sons, 431 W. Walnut St.
Sheckler's, 212 W. Chestnut St.
Sutcliffe Co., 225-227 S. 4th St.

LOUISIANA

New Orleans: Eastman Kodak Stores, Inc., 213 Baronne St.
Harcol Motion Picture Industries, Inc., 610 Baronne St.

MAINE

Bangor: Francis A. Frawley, 104 Main St.
Eastport: S. L. Wadsworth & Son, Central Wharf.
Portland: Bicknell Photo Service, Inc., 15 Preble St.

MARYLAND

Baltimore: Eastman Kodak Stores, Inc., 309 N. Charles St.
Lewy Movie Service, 853 N. Eutaw St., at Biddle.
Stark-Films, 219 W. Centre St.
Zepp Photo Supply Co., 3044 Greenmount Ave.
Cumberland: A. M. Lichtenstein, 61 Baltimore St.
Hagerstown: R. M. Hays and Bros., Inc., 28-30 W. Washington St.

MASSACHUSETTS

Boston: Eastman Kodak Stores, Inc., 38 Bromfield St.
Hotel Statler.
Film Library of New England, 239 Columbus Ave.
Ralph Harris & Co., 30 Bromfield St.
Iver Johnson Sporting Goods Co., 155 Washington St.
Leeds 16mm. Cine Service, 100 Boylston St., Colonial Theatre Bldg.
Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
Pathescope Co., of the N. E., Inc., 438 Stuart St. cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
Cambridge: John H. Derby, Inc., Harvard Sq.
E. M. F. Electrical Supply Co., 430 **Massachusetts Ave.**
Frank C. Hagyard, Main St.
Lowell: Donaldson's, 75 Merrimack St.
Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
Pittsfield: E. J. Curtis, Inc., 397 North St.
Salem: Pitman Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Westfield: North Side Pharmacy, 34 N. Elm St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: American Motion Picture Co., 2nd Floor, Convention Hall.
Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Camera Shop, Inc., 56 Monroe Ave.
Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.

(Continued on page 180)

Closeups—What filmers are doing

If, after years of dreaming and planning, you are at last building your own home, you couldn't do better than to make a film of the process. This is what O. S. Granducci, ACL, did for Frederick W. Shelton, a friend who built his home on a pleasant rise somewhere outside of Washington, D. C. *The House on Colony Hill* they called the 200 feet of 8mm. film and, into it, Mr. Granducci has put much of the slow, loving care and the sweet anticipation which are so vital a part of the story of a new home. This looking behind the scenes for human interest, and the countless effective and well photographed angle shots of the growing home, make *The House on Colony Hill* a joy to all concerned.

It was too bad that a person, who recently threw away a two year old copy of Movie Makers, did not hide nearby with his camera, ready for developments. Had he thought of it, he might have built up a swell human interest sequence about the passerby who paused to pick up the magazine. He might have caught the expression of surprise and pleasure on his subject's face and, in his editing, he could have inserted the title, "*Well, why didn't I hear of this before!*" Then, for the conclusion, he would need a scene of the man entering the League offices and, finally, an extreme closeup of his hand signing up for ACL membership. That was the way, in any case, whereby a recent new member first heard of the League.

The film, *Knights of the Clink, Clink, Clink,* is this month's outstanding example of the service that amateur movies perform for all and sundry other leisure time interests. Produced by Philip J. Healey, ACL, it pictures in 400 feet of excellent photography the nearly fanatic devotion of a group of summer colonists for the sport of horseshoe pitching. It seems that there were two factions among a certain bunch of summer residents and that their natural rivalry came annually to a boiling point in the bitterly contested finals of the quoits competition. For years, the Sunset Trail group had held the championship and ruled the roost. Then, in 1933, a twelve year old youngster from the Lenape Island mob strolled casually on the course, hitched up his short pants and whipped the entire crowd, hands down. The next year and the *next*, he did it all over again—and each time Mr. Healey recorded this world shattering event on film. But, at the end of each season, he would screen his record, and all were so pleased at seeing themselves in the movies that bitterness was forgotten and harmony restored.

Edward J. Hayes, ACL, filming "The Candy Kid", a photoplay based on a comedy of youth

Because the switchboard operator of the Chateau Frontenac, in Quebec, made an error in connecting the telephone of one guest with that of another, Duncan MacD. Little, ACL, of New York City, and the Hon. Frank Carrel, of Quebec, became acquainted a year or two ago—and have been friends ever since. Of course, it was movies which really did the trick, as each found the other to be a cinema addict, and it was movies which recently prompted Mr. Carrel to write a pleasant note of congratulation to Mr. Little on the occasion of his Honorable Mention by this magazine for *The Making of Canadian Homespun.*

A film we have been meaning to speak about is *Surf, Sand and Sunshine,* a pleasant and, in some spots, a melodramatic record of life on Bondi Beach, near Sydney, Australia. Running 400 feet of 16mm., and produced by James A. Sherlock, ACL, it tells the story of the Bondi Beach Life Guards, a sturdy and courageous group of men who patrol the surf of Sydney's famous watering place. In careful sequencing, Mr. Sherlock has pictured the customs and operations of this group in its daily work, weaving in a simple love story which climaxes with the heroine's timely rescue from an invading shark.

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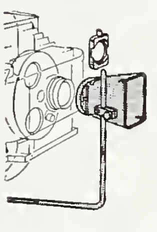

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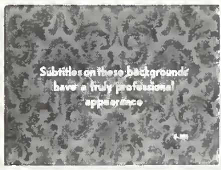
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(Continued from page 178)

Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange. 5 S. 5th St.
St. Paul: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.
Winona: Harry Peiewert Photo Supplies, 69 E. 4th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Butte: Al's Photo Shop, 42 N. Main St.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 419 S. 16th St.
J. G. Kretschmer & Co., 1617 Harney St.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman's, 384 Springfield Ave.
Trenton: Dwyer Bros., 127 N. Broad St.
Stewart's School Films, 143 Hunter Ave.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner. Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
Ollie V. Crennan, 498 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Columbus Photo Supply, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand. Times Bldg.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co., Inc., 10 W. 33rd St.
MADISON MART, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
Henry Westpfal & Co., 4 E. 32nd St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio. Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies. 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., cor. 4th and Boston

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios. 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange. 306 Diamond St.
Reading: Alton E. Bowers, 416 N. 5th St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Scranton Home Movies Library, 316 N. Washington Ave.
Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.
H. H. Page, 115 N. 6th St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell.
Phillips: Jakoubek's Photo Shop.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ALGERIA

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

AUSTRIA

Vienna 1: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Orillia: Stewart Studio, 107 Mississaga St.
Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.
Cairo: Kodak (Egypt) S. A., Midan Ibrahim Pacha. Continental Bldg.
20 Sharia Maghraby.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbin's, 131 High St.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Et. Hesperiankatu 12A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 253 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORWAY

Oslo: A/S Narvesens Kioskompani, Postboks 125.
J. L. Nerlien, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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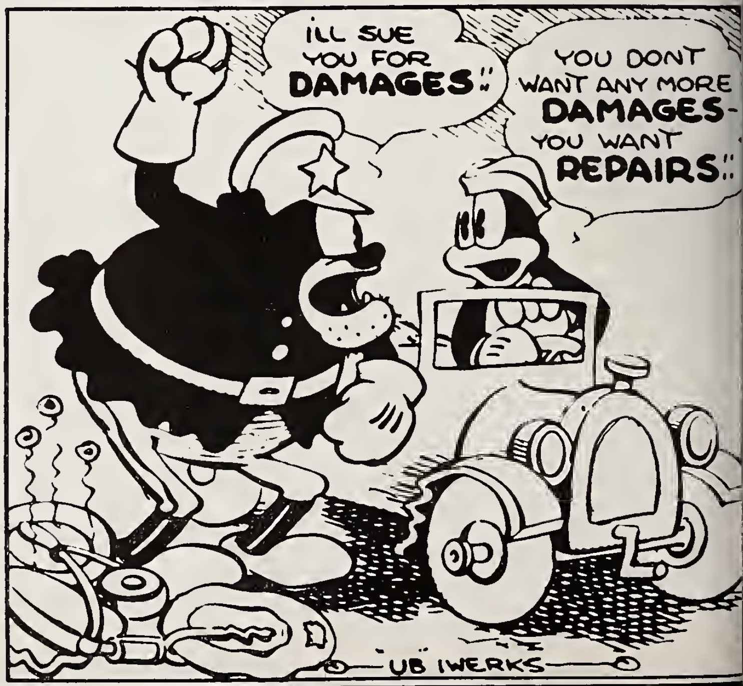
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Bell & Howell manufactures a number of models—each precision-made, each unsurpassably fine in its respective field. Some of the most popular of these are described briefly below.

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Filmo 70-E, 16 mm.

Identical in appearance and quality to Filmo 70-D but without the lens turret and the variable viewfinder. Operates at four speeds and is, like Model 70-D, unequaled for color or black-and-white movie-making.

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

25c

MAY, 1936

What membership in the AMATEUR CINEMA LEAGUE will bring you—

1. **MOVIE MAKERS** ■ Membership includes a subscription to MOVIE MAKERS, a monthly magazine covering every phase of amateur filming, including timely articles on all aspects of movie making technique. Not only does the magazine keep you abreast of all new developments in method and equipment, but it includes in each number several articles designed especially to introduce the new enthusiast into the craft—articles which will present fundamentals of camera operation intelligibly and enjoyably.
2. **TECHNICAL CONSULTING SERVICE** ■ The League's technical consultant will answer any member's question by letter, by 'phone or in person if the member calls. He offers advice and help on exposure, focusing, use of filters, editing, titling or interior lighting—in fact, the whole range of technical problems. This service is not syndicated, but actually individual; the consultant will give full attention to any member's problem, sending him a full discussion, illustrated with diagrams, examples, etc., if necessary.
3. **CONTINUITY AND PHOTOPLAY SERVICE** ■ The continuity consultant will aid you in planning specific films by making continuity and treatment suggestions indicating how to get the most effective results not only in the reel as a whole, but in specific shots. In addition to this aid in "planning in advance," he is always glad to make suggestions for future work. He will give specific suggestions for writing scenarios, he will prepare title wordings and outline new subjects for filming. Detailed service in planning business, professional and industrial pictures is offered.
4. **CLUB SERVICE** ■ Should you wish to organize an amateur motion picture club—either a group to produce photoplays or a club of amateur cameramen—the club department can aid you. Complete organization material, based on the experience of hundreds of clubs, is available. Program suggestions are offered and A CLUB FILM LIBRARY, made up of outstanding films produced by clubs, is circulated among clubs without charge.
5. **FILM REVIEW SERVICE** ■ You may send in any films you wish for criticism and suggestions by the technical and continuity consultants. The member will receive a detailed letter about each picture screened. Editing and titling suggestions are offered and advice on technique for the future is given.
6. **BULLETINS** ■ Booklets and bulletins, covering general and specific subjects on which the movie maker wants up to date, detailed information, are supplied to members without charge. They are issued periodically and give the latest information on the subject that they cover. More important ones are printed as bound booklets and others are clearly and legibly mimeographed. Members, on request, will be sent any or all bulletins that are in print. A member may at any time request that all future bulletins be sent to him as they are published during the period of his membership. These booklets and bulletins can be secured only through membership in the Amateur Cinema League and are not otherwise available. Printed bulletins now current are:

   Cine travel plans—32 pages
   Scenarios ready to film—32 pages
   Titling technique—32 pages

   In addition to the bulletins, numerous service sheets are available to meet needs for specific information. These are not sent automatically to members but are used by the service departments to fill some of the special requirements for information that come from members.
7. **SPECIAL SERVICES** ■ These two important special fields are available through the PLOT SERVICE CHART and the TITLE SERVICE CHART by means of which members may secure individually prepared plots and detailed aid in title making. These charts are supplied, on request, to members only.
8. **EQUIPMENT SERVICE** ■ New equipment is being announced constantly and this service will help you to keep your own equipment modernized without duplication of purchases. The League aids members in locating new equipment, in making out filming itineraries and equipment lists and in securing specific films to fill in reels. It will also lend its services to facilitate relations between members and manufacturers and dealers, if this should be requested, and will secure information for its members on conditions affecting movie making in foreign countries.
9. **MAKING BETTER MOVIES** ■ A 241 page book on amateur movie making is sent to every member. Written in clear, non technical language, this book gives directions for every process, every device and every trick in movie making that you will be likely to use. It tells you, step by step, just what to do and how to do it to get the best results from your camera and projector. It is well illustrated.
10. **FILM EXCHANGE** ■ This service on a loan basis is made possible through League membership. As a member, you may list your films in the Film Exchange for temporary loan among members and receive in return the listing, by your fellow members, of hundreds of other reels, available directly from member to member. Available only to members who list films for exchange.
11. **PUBLIC RELATIONS** ■ The League has been able to accomplish much for amateur movie makers. It secured national legislation abolishing the former duty on amateur films, under regulations that are very fair to amateurs. It has aided in opening previously closed filming areas to amateur cine cameras. Further, the League acts as a clearing house for all ideas about movie making and announces these monthly in MOVIE MAKERS, which is written by amateurs and for amateurs. Amateur needs are told to the industry that provides equipment, and often new and necessary articles have been developed at the instance of the Amateur Cinema League.

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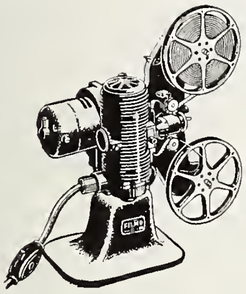

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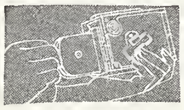

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MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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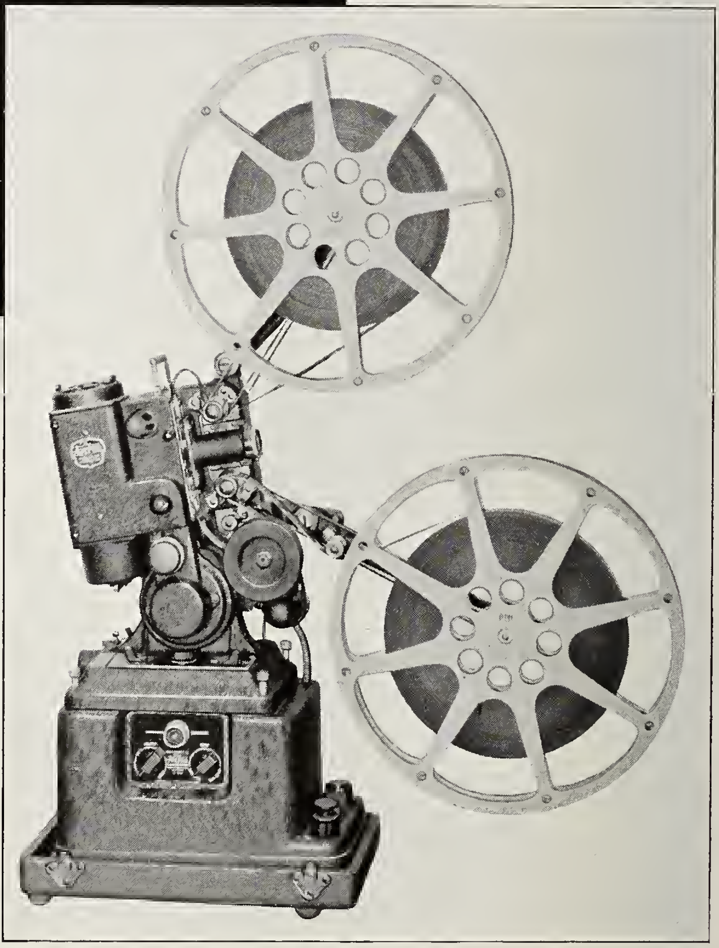

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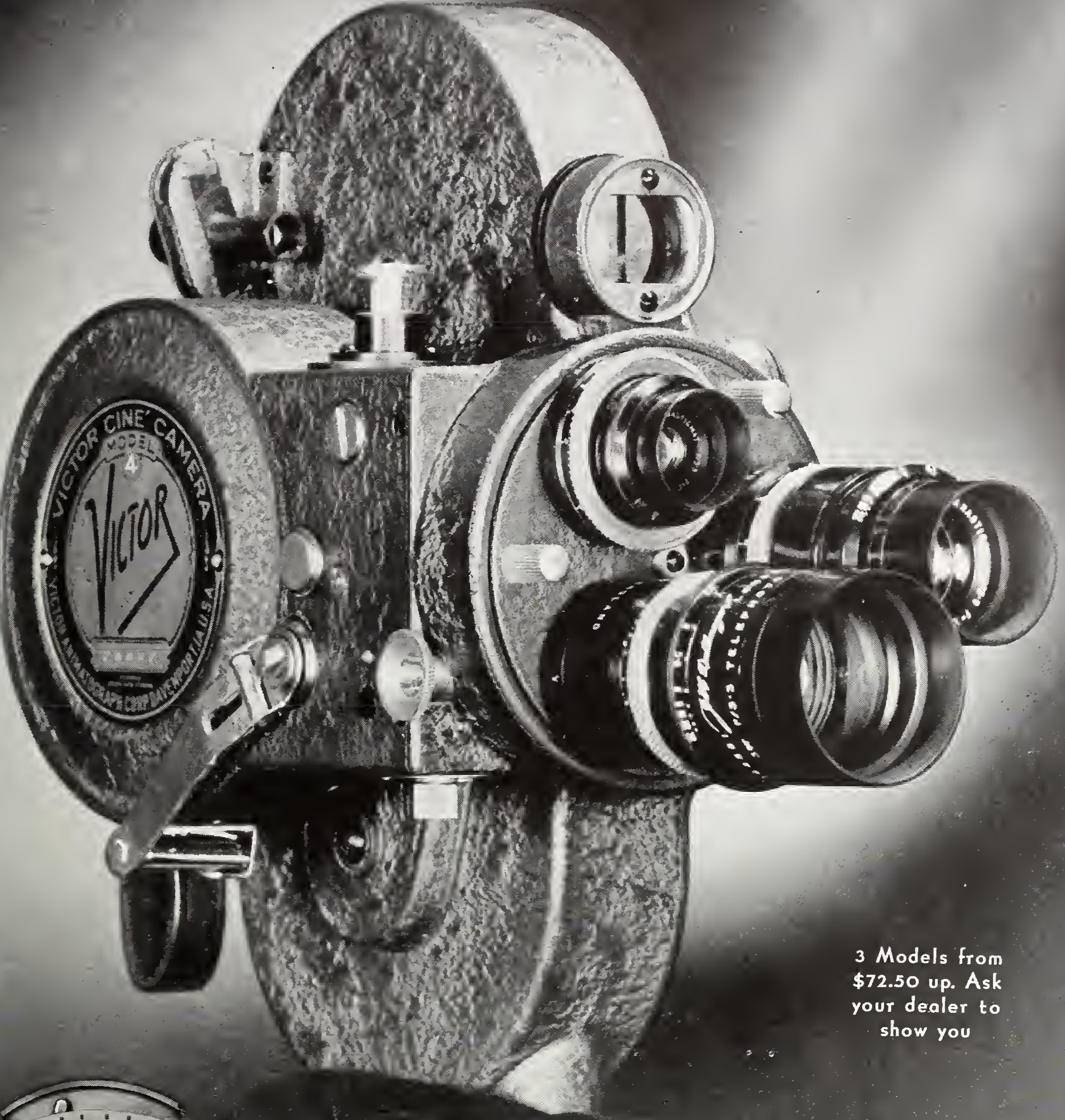

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whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

Hiram Percy Maxim, Founder

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AMATEUR CINEMA LEAGUE, INC.
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A year of tens

THE figure ten is involved with many activities of the Amateur Cinema League and of Movie Makers during the year 1936. Anticipating the year by one month, this magazine completed its tenth volume with the appearance of its December, 1935, number. Since the first volume, that of 1926, contained only one number, the real tenth publication birthday of Movie Makers will not arrive until the December number of 1936. In July of this year, will occur the tenth anniversary of the founding of the Amateur Cinema League, in New York City, July 28, 1926.

In the midst of these occasions for rejoicing, there is another figure ten that brings sadness. Hiram Percy Maxim, the League's pioneer President and founder, fell short, by a few months, of rounding out his tenth year of service as the head of our organization, when his brilliant career was so abruptly ended last February. He was impatient for the arrival of the League's tenth birthday and had expected to join in its celebration, which now, because of his death, will be curtailed greatly.

On the thirteenth of the current month the tenth annual meeting of the Amateur Cinema League will be held in the League's new headquarters in the Graybar Building in New York City. The change of address of League offices is another fact involved with the tenth year. As has been the custom of our organization, the annual meeting will be entirely a business session, devoted to reports and elections and such new business as may arise. Because of the widely scattered membership of the League, spreading all over the world, the management of our organization has believed that annual meetings should, in fairness to distant members, be restricted to organization business and that they should not become program sessions.

Although this tenth annual meeting of the League will be concerned with routine matters of business, the fact of its approach reminds all of us that a decade of service to amateur cinematography has been completed by the Amateur Cinema League and that this service has been rendered under the influence of a continuous policy, under the leadership of the same officers, with the change of only four directors and at the same address.

The League's tenth annual meeting will find those policies in operation that have governed us since our founding. It will be greeted by a new President, Stephen F. Voorhees, but a President whom it has learned to know and to admire in his ten years of service as vicepresident. It will find a new vicepresident, Lee F. Hanmer, who has served so ably as a member of its Executive Committee, also for ten years. It will find other officers unchanged. It will see new and larger headquarters in a business section of New York City more suited to the needs of an international organization than was the section previously occupied, which had in recent years been preempted by the wholesale business. These are sound changes designed to insure the high quality of service rendered.

The Amateur Cinema League is ready for the next decade. It has experience and the knowledge born of that experience. It has given service to its members and they have that confidence in it which comes from a realization of what they have received. Its business affairs are soundly administered and it is respected everywhere. The next ten years will maintain the standard set by the first and should advance that standard still further into new fields of service to movie makers.

R. I. Nesmith and Associates

F. S. Lincoln

Here are trees in springtime dress and full leaved in summer's heat. These and countless others will pose for cine shots, and the film may be given a refreshing continuity through titles, as presented opposite. A tree need not be a still life study only, for breezes give movement, while the squirrels, birds and insects make it a living universe. Try a picture of trees!

MOVIE MAKERS

Trees plus titles

BETH BROWN, ACL

THEY'RE scenic. They're entertaining. They're educational. And they're food for film. We're talking about trees.

Here's a subject for your camera that's simple to take and easy to make. When it's finished, you have a canvas of beauty and majesty that never grows tiring and always stays timely.

It is surprising what a variety of trees blankets this old earth of ours! Even more surprising is the variety of uses to which they have been harnessed by man. That can be the story of your film on trees.

Once you get started, you'll discover—as we did—that the topic is an inexhaustible one, opening a hundred fascinating avenues of color, beauty and adventure. In fact, a whole reel can be shot around one tree, for a tree can be as dramatic as any temperamental Hollywood picture star, changing in mood and manner, not only with the season but with every hour of the day and night.

You can shoot that single selfsame tree dressed in summer, dressed in fall and in winter snow—in sunlight, in moonlight and in rain. You can shoot it from a dozen different camera angles—looking up from the earth and looking down from an airplane. You can film a mass of foliage against a hill or a closeup of one little leaf magnified in all its lacy beauty. No two blades of grass on earth are alike. Well, neither are any two leaves alike on any one tree.

Though it seems to be the general concept, a tree is not a still life portrait by any means. Your tree is alive with squirrels and birds and millions of insects to whom it is a universe.

When you film your tree, the whole wide horizon opens up—the seasons and the skies and the fields and the inanimate world of streets and houses. You'll find yourself—as we did—falling in love with some particular tree. That, in itself, is a new adventure for you and your camera. Neither of you will ever be quite the same again—but then you won't want to. Nobody ever does!

Well, and now to work at our film on trees. It's easy, once you follow a central theme and such general titles as the following:

Main title: *Trees.*

Fade in against a soft, decorative background—if you have one. If you haven't, use a line drawing. Fade out and into:

Title 1. *Trees are man's true friends. They give all—and ask nothing.*

Insert any long shots that you have. A panorama or a sweeping vista of trees is preferable.

Title 2. *Their willing arms drop ripe fruit into your lap at harvest time—*

Insert here a sequence of an orchard. This can be an apple orchard or an orange grove with, if possible, fruit lying on the ground or in the process of being picked. Follow medium shots with closer ones of individual fruits.

Title 3. *They strip off their bamboo coats to make the chair that rests you—*

Insert here a sequence of bamboo trees. We were lucky enough to get one with a man in the foreground stripping the bamboo and making chairs. If you can't get your bamboo and your man, then substitute a pine or maple tree. Merely shorten your title to read: *They make the chair that rests you—*

Title 4. *They gather moss to soften the mattress for your sleep—*

Insert a sequence of trees from which the moss is hanging.

Title 5. *And this is why your dreams are sweet—*

Use a long shot of trees overhanging a dreaming river. If you can, let the camera move slowly forward in a canoe or boat. A quiet lake or a sunny brook will do. Follow with scenes of an orchard in bloom, including medium shots filled with branches covered with blossoms.

Title 6. *Their beauty clothes the ugly city streets—*

Take scenes of a shady street. If possible, have the trees meet in a great green canopy overhead. Perhaps you have in stock a slice of park against some ugly skyscrapers.

Title 7. *They build your home and then stand guard beside it—*

Follow with shots of any old tree (the older the better) beside any old front door (ditto about the door!).

Title 8. *Always on duty without pay or thanks—*

Make a night shot of same. If you aren't up that late, a sunset will do. But set that sun right in your tree. Fade out and into:

Title 9. *Without the gift of rubber trees, the world would not go round—*

A rubber plantation. If you haven't one on hand, use closeups of automobile tires, bicycle wheels, etc.

Title 10. *What would Christmas be without the Christmas tree?*

Interior or exterior scenes are equally appropriate here. A lighted tree in the living room—if you're equipped for lighting. If not, shoot a Christmas tree that is growing on the lawn and is all dressed up in lights, or a municipal Christmas tree in a city square.

Title 11. *Even in their winter sleep, their beauty does not rest.*

Insert snow shots made deep in a woods.

Title 12. *Their green umbrellas shade you from the tropic sun—*

Shot of palm trees in the languid tropics. (We'll compromise on Florida or California!)

Title 13. *And what can man learn from a thin little tree like this?*

[Continued on page 215]

The ACL leader

FRED BARBER

A description of the methods used in its production

IT IS probably evident to all movie makers who have seen the new ACL leader that it is not a straight camera job. To the more advanced filmers, it will at once have been evident that the effects were secured through special camera work and optical printing.

This film was made, to a great extent, on a trick optical printer of my own construction, and a brief description of this apparatus will help to make clear how some of the effects were produced. This mechanism is employed not only for optical printing and effects, but also for straight shooting, special scenes, titles, backgrounds, miniatures, inserts and the like, to be used later in the combined form.

The trick optical printer consists of a six foot lathe bed with a 35mm. professional studio camera mounted at one end. The camera can be moved up and down and sidewise by using precision screw adjustment. On the carriage of the lathe is mounted a remodeled projector with separate lamp house. It is possible to remove quickly and easily both the projector and lamp house, leaving nothing in the way should one desire to do straight shooting.

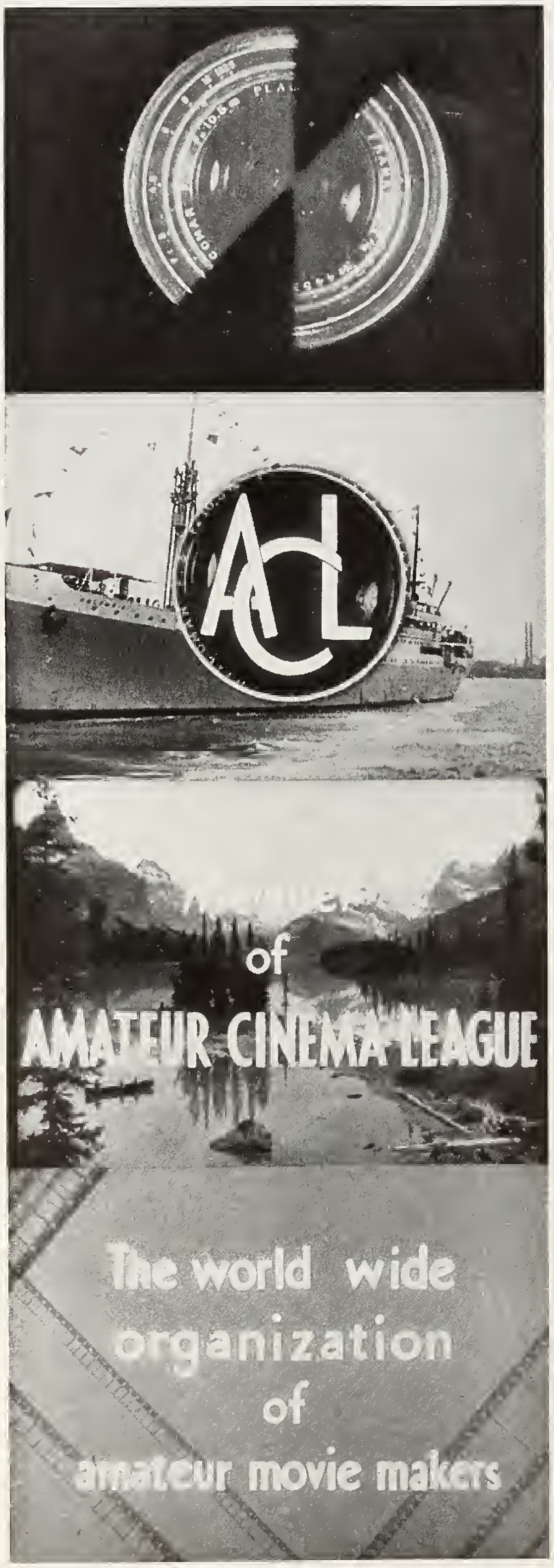
This trick optical printer does not run at high speed; on the contrary, its highest speed is only ninety frames *a minute*. The reason for this slow speed is that, by this means, single exposures will be the same as those that are made when the apparatus is running continuously. In fact, most trick optical printer work is really only another form of animation in which frames are exposed separately and several changes or adjustments are made between each exposure. For example, in "zooming," the scenes are not moved up automatically. Instead, the carriage, upon which the projection head is mounted, is moved slightly closer and the focus adjustment is moved to the correct position. One frame then is taken and the operation is repeated, using a focusing chart worked out for the purpose. Dissolves and fades are set by hand, step by step, in a similar manner. The "wipe overs" are often worked frame for frame in the same way, and hence the hardest and most time consuming part of any trick photographic work, including the ACL leader, is making out the complete photographing schedule frame by frame in advance. The exact length of the ACL leader is 563 frames, and the photographing schedule was four typewritten sheets long, with another sheet giving nothing but the settings for the "zooming."

The League's leader opens with a closeup of a front view of a lens almost filling the entire screen. A lens was set up on the carriage of the optical printer, very carefully centered, and the size of the view was adjusted. Then an iris was put in position and was set to cover only the lens mount, while the lights were placed carefully so that there would be no very pronounced highlights on the lens. Several feet of film were exposed, the negative was developed and a master print was made on lavender stock.

The two subtitles and the ACL monogram were photographed next. The size and position of the "ACL" were determined very precisely, so that the letters would be just large enough to fill the lens previously photographed but could also be kept inside the lens barrel and would remain perfectly centered there. These were all photographed on positive stock for contrast, and the negative was printed on regular positive stock.

The background scene for the latter part of the leader, a drawing of strips of 35mm., 16mm. and 8mm. film crossing at right angles, was first photographed as small as the proportions of the drawing would permit, while a slow, steady horizontal movement was used. The camera was then reversed to the starting point and the background drawing was rephotographed further away from the lens, so that the film strips on the drawings were about twice as wide as in the first exposure. In this second shot, there was a horizontal movement, in the same direction as in the first scene but exactly twice as fast. This gave moving film strips with a semi stereoscopic effect. This double exposure was made on lavender duplicating stock, the negative was developed and a lavender master print was made.

Lavender master prints were also made of six background scenes previously picked out for the middle portion of the leader. These were a ship leaving the dock, a football game, a closeup of a baby, a man looking into a microscope, an electric magnetic crane and a scenic shot, each symbolizing a different type of movie making activity. When the master prints of the scenes [Continued on page 217]



Frame enlargements of four sections of the ACL leader

Don't neglect the dramatic closeup when reeling fish

Filming fishers

ORMAL I. SPRUNGMAN, ACL

Suggested methods and equipment for cine fishing reels

PERHAPS the most distracting job confounding any sportsman is this business of making a fishing movie while the fish are biting best. If you're a dyed in the wool angler, it isn't easy to lay aside your rod and to pick up the camera after the "lunkers" once start breaking water or rising to flies and "socking plugs." When you can reach for the camera without batting an eye, you've made the first hurdle.

While this article will not treat of continuity themes, it might be well to mention that movie making anglers should attempt to give each fishing film a slightly different slant. Instead of portraying action in the usual manner, why not have one member of the party tell the story as he sees it? Or, better still, unfold the sequences from the point of view of the fish you're pursuing, interjecting, from time to time, humorous bits of dialog revealing the fish's own idea of the fisherman as the battle progresses. Suppose that the fish broke the line or snubbed off the hook, what "wisecrack" would such a fish hurl at the angler if the fish talked his language?

Fish movies need not always start with preparations for the trip and the arrival at the lake or stream. Just for variety, open your film with a medium shot of a campfire scene, showing tasty looking fish frying over the open fire and members of the party well along with their meal. Smudge the fire so that the smoke covers the lens field. Next, swing to a hazy shot of a fisherman smoking. As the smoke clears from in front of the lens, you will have a closeup of your subject's head. Now pull back to a medium shot and show that the angler is wading the stream or casting from a boat. Include all your fish action from here on. At the end, return to a closeup of the same angler relighting his pipe, then drop back for a near shot showing him and his party reclining outside of the tent. Finally, swing to closeups of fish bones on a plate. grease hardened in the frying pan and glowing embers slowly dying in the fire. Maybe you can throw in a good sunset. Anyway, you'll give your fishing film a refreshing slant.

The sportsman whose business limits his fishing trips to short weekend jaunts usually does not want to overburden himself with an array of movie equipment. Nor is this necessary. A camera with an *f*/1.9 or faster lens is preferable to a slower lens, since this permits shooting under unfavorable lighting conditions. This does not mean, however, that a slower lens will not take first class fish pictures.

A telephoto lens is handy for extreme closeups of fish action at safe distances, so that there is no danger of either camera or operator being splashed when a big fish starts surface thrashing. The telephoto also gives an opportunity for candid photography of the party members without their knowledge. While the best length for this lens will always be a matter of dispute, I believe that the three inch is perhaps the most satisfactory.

For bringing out cottony clouds in a broken sky, a yellow filter or two should be included in the angler's movie kit. A filter of rather heavy density can be used effectively when shooting into sun dazzled water and for capturing lakeside sunsets at the close of day. If your fish film is one hundred percent color, you'd better take along the haze filter for distant shots. It is understood, of course, that the yellow filters for black and white work cannot be used with color film.

Tripods are terrible things to tote around on a weekend outing, and yet they're most necessary for "jitter free" pictures, especially if you're using that telephoto lens mentioned above. It isn't easy to hike along a brushy stream with a fly rod in one hand, the tripod in another and the camera tucked under the arm. If you strike a spot where it is practically impossible to set up a tripod, rest the camera against an old stump, a boulder, a fence post or any other firm support and shoot away with confidence.

A range finder provides a swift, accurate method of determining the distance of your subject from the camera, but a metal measuring tape which can roll itself up will serve also. When filming objects within fifteen feet of the lens, accurate focus is essential. And if your outdoor guesses on the light don't come out so good, you'd better carry along an exposure meter on your next trip.

The amount of footage to shoot will depend on circumstances, the kind of fishing and the scenic interest of the country visited. For a weekend journey, two or three 100 foot rolls of 16mm. film, or the equivalent in 8mm., should be about right. More footage may tire your audience. With less footage, you can't do justice to your subject matter.

The best method of carrying even this limited amount of equipment may cause some head scratching. It can be carried about in a small suitcase carryall or packed away in a discarded shell kit or tackle box which is seamless and waterproof. By removing an extra shelf or two from your fishing kit and lining the inner surface with felt, you can adapt your box for movie making as well as for fishing. This will necessitate leaving home that extra reel for the fly rod and casting rod, as well as the surplus lures and lines. The box is bound to be heavy and will have to be carried by hand, which is not so good for woods travel. If the camera and accessories could be stored in one or two compact units, I'd suggest stowing the stuff away in a small packsack which can be shouldered, thus leaving both hands free for fishing and filming.

The same *don'ts* that apply in sports filming often hold good in fishing movies. In football, for instance, nothing is more disconcerting than witness-

[Continued on page 218]

The basis of Kodachrome exposure

J. F. HOLDEN

SINCE Kodachrome film is fairly new and since most of us are much better acquainted with the use of black and white film, it is only natural for us to want to compare the two. However, I do not believe that a direct comparison can be made. for the principles of color photography are quite different from those of black and white filming. Nevertheless, there are certain factors which are common to both types of photography but which differ somewhat in their behavior when applied to Kodachrome.

First, in order to understand the differences between black and white film and Kodachrome, we will have to go back a step and review the characteristics of black and white reversal movie film and some of the factors affecting exposures made on it. Photography depends upon the sensitivity to light of certain silver salts (silver bromide and silver chloride). These sensitive salts, when suspended in gelatin, are called emulsions and, when this emulsion is coated in a thin layer on a transparent film support, it is called photographic film. When mixing the silver salts with gelatin, it is possible to add certain sensitizing dyes to control the degree of sensitivity of the emulsion to the various colors of the spectrum.

Light, whether daylight or artificial, is made up of waves or vibrations of varying lengths. When light is passed through a prism, these waves are bent to different degrees, so that we see a color spectrum—red, orange, yellow, green, blue and violet. Film can be made sensitive to one, some or all of these colors. A film sensitive to violet, blue and green is called orthochromatic and a film sensitive to all colors is called panchromatic.

When we make a picture on any of these light sensitive materials, there is no noticeable change in the emulsion. Therefore, in order to obtain a visible image, it is necessary to develop the picture. This is accomplished by using a chemical solution, called a developer, which has the properties of changing the silver salts affected by lights into metallic silver.

When we do this, the parts of the original subject which were light in color (faces, light shirts. etc.) appear black in the developed film. These parts reflected the most light through the camera lens and greatly affected the sensitive silver salts. Dark colors or tones of the original subject (deep shadows, dark clothing, etc.) reflect very little light and, as a result, they make relatively little impression on the light sensitive silver salts.

For these reasons, the tones of the developed image are opposite to those of the original subject. This is called the negative image. To make this image permanent, the remaining unexposed and undeveloped silver salts are dissolved out by a solution called hypo.

In order to reconstruct the tone values of the original subject, it is necessary to make a positive, or a print from the negative, on other photographic material. The positive can be made either on photographic paper to be viewed by reflected light or on another transparent film to be viewed by transmitted light. Most still pictures are printed on paper, either by contact printing or enlarging, while lantern slides are made by printing such negatives on emulsions coated on glass.

Theatrical movies are printed on another transparent photographic film. When this is developed and treated with hypo, the tone values of the original subjects are properly represented by the same relative values of light and shade.

The why and how of diaphragm use with this emulsion

With the reversal process which is used for processing 16mm. and 8mm. movies, all these developing steps are done on the one film. The film exposed in the camera is developed to a negative, but the remaining unexposed silver salts are not removed in hypo, as is the case in negative and positive processes. Instead, the developed silver image is dissolved out or completely removed. This leaves a reversal or positive image remaining in the silver salts left on the film which were not affected by light or developer. These remaining silver salts then are automatically printed and developed to a positive image, rendering the finest picture possible from the original camera exposure.

The use of the reversal process as compared to negative and positive methods has many advantages. First, it enables us to cut film expense in half—it is necessary to purchase only one film. Secondly, it has a finer emulsion grain (the word, "grain", is used to describe the small particles of developed silver salt), and consequently it offers better definition and greater uniformity of density and contrast in the final projection positive.

The only weakness of the reversal process is the danger of bad overexposure. With ordinary negative and positive processes, an extreme overexposure on the negative can be given a long printing time, and some sort of print will result. But, if a reversal film is badly overexposed, all the sensitive silver salts are affected, developed and removed by the bleach, leaving practically no silver salts for the second, or positive, print image. This is not as serious as it may sound, for a picture would have to be made in bright sunlight of *f*/11 or *f*/16 quality but with a lens aperture of *f*/1.9 if it is to be overexposed enough to be ruined in this way.

Underexposure, on the other hand, is just as serious for one method of development as another. If a picture is underexposed, a very few of the sensitive silver salts having been affected by light, there is not much that can be done in development or after treatment to improve the results.

The exposure characteristics of any film can be expressed diagrammatically. The curves for Ciné-Kodak panchromatic and other black and white films are quite similar (see Figure I). The speed of a film (the rapidity of its response to light) should not be confused with its latitude or exposure range.

The chart, Figure I, could represent a cross section of 16mm. panchromatic reversal film. The steps could indicate the number of times an exposure could be doubled and still allow the density to be rendered correctly on the film. For example, suppose that A in Figure I represents the density obtained by an exposure of one second, A' then would represent about 256 times A exposure, or 256 seconds of exposure. The distance from A to A' indicates the usable range of the film, or its exposure latitude. The area from B to B' is the range of underexposure, while the area from C to C' represents the range of overexposure. While the distance from A to A' represents the extreme latitude in which satisfactory results will be obtained, the best results are obtained, however, by using the central portion of the latitude scale between B' and C, and it is in this area that all perfectly exposed pictures are made.

In judging the correct exposure, a factor of great importance is the contrast of the original subject. Blacks, flatly illuminated, reflect about two percent of the light falling on them and whites, under similar conditions, reflect about ninety percent. This gives a contrast ratio of about 1 to 45. The average subject contrast is between 1 to 30 and 1 to 40. A picture of a person silhouetted against a sunset over the water might have a contrast of 1 to 1000, while a sailboat against gray

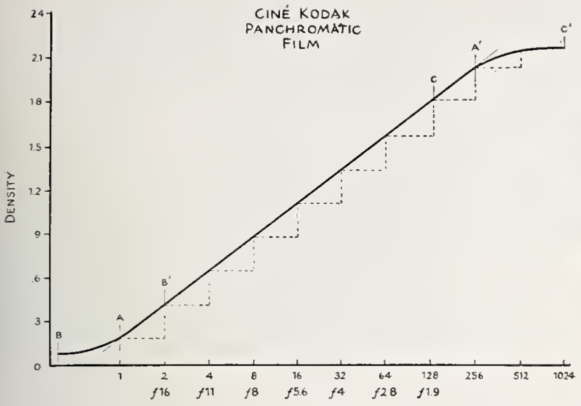


FIG. I

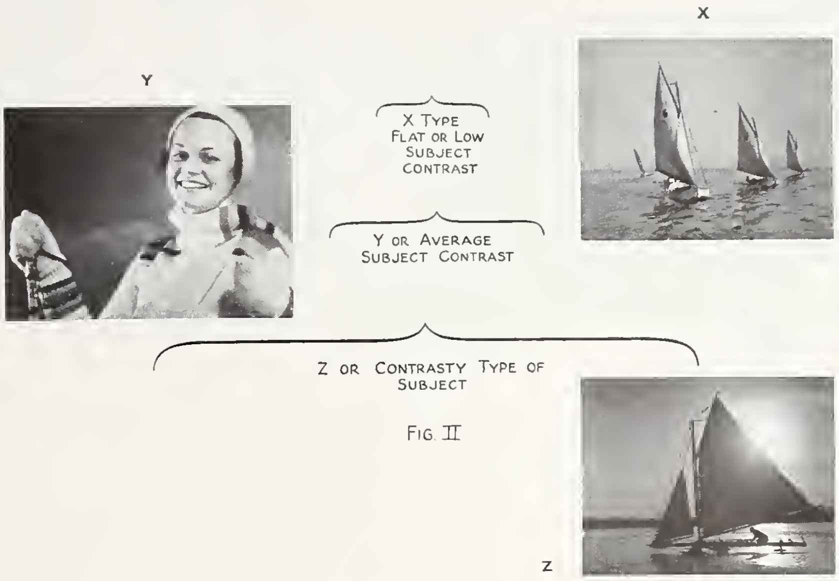
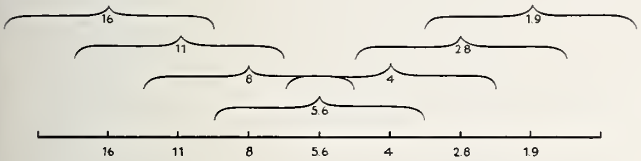
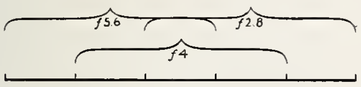


FIG. II



AVERAGE SUBJECT CONTRAST EXPOSED FROM f1.9 TO f16 ON PANCHROMATIC FILM

FIG. III A



AVERAGE SUBJECT CONTRAST FROM f2.8 TO f5.6 ON KODACHROME

FIG III B

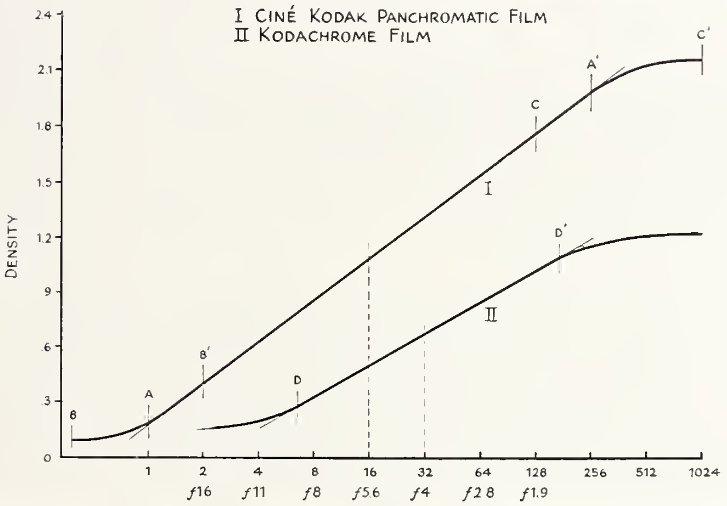


FIG. IV

*f*1.9

*f*3.5

*f*5.6

BETWEEN *f*5.6 AND 8

FIG. V

clouds and grayish water on a dull, cloudy day would have only a contrast of 1 to 5 or 1 to 10. These, of course, are the extremes. (See Figure II.)

Now, to simplify the subject somewhat, let us extract the area between A and A' in Figure I and call it an 8 inch rule. (See Figure IIIA. upper diagram.) Also let us make three brackets. X, Y and Z. representing the contrast for a subject of low, average and high contrast respectively. (See Figure II again.)

It is obvious that. to judge for the best all around exposure for the Z subject, we would have to estimate the intensity of light fairly accurately to fit it on your 8 inch exposure scale.

With the Y subject contrast, which we may assume to be average, we can start along the exposure scale, centering it at f/5.6, and move it along to the f/1.9 end of the scale, moving one division at a time. Then, going back to the central f/5.6 position, move the bracket in the other direction toward f/16 in the same manner. You will find that you can move about three points in each direction and still not run off the film latitude scale appreciably. (See Figure IIIA.)

You no doubt already have discovered an interesting thing, that in an average light for pan-

[Continued on page 208]

Publishers' Photo Service

Scenes typical of film possibilities offered by Mexico

Going to Mexico?

If so, make notes of these lures for your cine camera

DR. F. S. O'HARA, ACL

LAST YEAR, I spent the month of September movie making in Mexico, most of the time in the less frequented places, and the results, thrown on the beaded screen, have been more than worth the efforts that they cost. I had no trouble with authorities and nothing but cooperation from the Mexican citizens. To duplicate my happy experience, it is necessary only to follow these few rules:

1. Do not film the military or their possessions.
2. Do not make movies in or around railway stations and trains.
3. Do not film within public buildings.

If you observe these simple "don'ts," you are not likely to be interrupted in spinning yards and yards of cine film behind the lens of your Cyclopean movie machine. It is now unnecessary to have your films processed for inspection before leaving Mexico, although I would advise having your first rolls processed down there so that you may enjoy the comfort of knowing that your exposures and your filters are singing the same tune.

In the city of Mexico, there is a picture in every block, and it is only necessary to let your ideas of composition and your carefully planned sequence be your guides. To be mentioned here are only those places that you ought not to miss filming, so let us start in the very center of things—the Zocalo, or open space in front of the cathedral, and Sagrario Metropolitano. These historic structures pose best for you when you are in the middle of the block, on the Avenue 16th of September. Turn your head to the right, and there, only 100 meters distant, is the Palacio Nacional, one of the largest state office buildings extant. Now turn to the left and make a few feet of the Avenue F. Madero as it leads west. After a half dozen blocks, Madero merges into the Avenue Juarez, and right at the union of the two streets is a good place to face roundabout to get a few feet of the Casa los Azulejos. It being morning, you will obtain your best views of the National Theatre from this end of the plaza, and right there you will begin to feel that it is a good idea to have along two movie cameras, one loaded with color film. The dome of the National Theatre deserves color shots, and the Flower Market, west of the theatre, also should come in for a share of the color footage. Then, when you walk north through the edge of the park (Alameda) to film the two churches, perhaps you will decide upon color film again.

Walking south again through the Alameda, you will meet a bevy of rug and *sarape* venders with their bright wares. Naturally, this will be in color. They will pose for you readily and cheerfully. Fifty yards to the west is the memorial to Benito Juarez, best filmed from across the street. And now for a taxi with an English speaking driver, for we are on our way to the Paseo de la Reforma, that Champs Elysées of Mexico, D. F.

Every now and then, the Paseo widens out into a *glorieta*, and in the very centers of these we find monuments which may be filmed with action in the foreground. First comes that of the Iron Horse, then Cuahtemoc, next Columbus and finally the Statue of Independence, which is close to Chapultepec Park. With all these in the bag, we now can shoot the big cypress trees in the park.

Chapultepec Castle, at the top of the hill, is not so good as something to film; I made my shots from across the lake. If your driver knows his Mexico, he can return you nicely to the city through Tacuba, where you can see the Tree of the Dismal Night, made famous by Cortez; or you can return via San Angel and make pictures of the monument to General Obregon.

If you have selected Sunday for this trip, you will find the traffic crowded. Everybody rides, drives or promenades on the Paseo de la Reforma on Sunday afternoon, and at four o'clock occurs the bull fight. Those of a different mind go to Xochimilco, a dozen miles south of the city and famous as "The Venice of America." If you wish pictures of crowds of people, go to Xochimilco on Sunday morning, visit the Paseo and Chapultepec early Sunday afternoon and then drive over to the Avenue Durango or the Avenue Oaxaca to be in time for the bull fight at four o'clock. But, be sure to obtain your tickets to the Plaza de Toros during the week. Seats well down front (front row if possible) in the shade cost much more than others, but to movie makers they are worth more, for the view will be unhampered by those in front of you.

At Xochimilco, you cannot go wrong, unless you throw your camera overboard or step on it. Bear down hard on the color at Xochimilco. At the bull ring, use color early in the *corrida*, for the amphitheatre is a deep saucer and it soon becomes darker than you think.

Guadalupe is but six miles away and it may be reached by trolley, rail or automobile. Here we find the Cathedral with the Miracle Painting, the Chapel on the Hill and the Chapel of the Sacred Well. A pretty little religious story may be woven from these scenes, as well as an interesting view which may be taken from the hilltop.

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The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Loading ■ With summer comes bright light, which is fine for making pictures but which is bad for loading film in the camera, because of the possibility of fogging. The camera should never be loaded in direct sunlight, and on bright days it is best not to load it in the open shade. The most convenient protection is a coat or blanket thrown over the knees so that the camera can be handled in very subdued light. Unwind just enough film to complete the threading and be sure to prevent the film from uncoiling on the spool. As soon as the threading is finished and before replacing the cover of the camera, run off a few inches to assure yourself that the film is feeding properly. After the cover is on, run the mechanism while counting slowly to twenty five, thus allowing the fogged or leader portion of the film to pass the lens and to wind on the takeup reel.

Diving shots ■ The art of following a diver as he leaves the board and plunges into the water is important to the movie maker who films water sports. Nothing is more annoying than to see a picture of a dive which does not show the diver cutting the water. It is a good plan to practice with the camera on a few dives before shooting any film. Keep the subject in the center of the finder so that, when he cleaves the surface, he will be perfectly centered. It is only in this way that the most spectacular part of the maneuver can be recorded.

William M. Rittase

To end this scene, drive the car away from the camera

Scene endings ■ In lieu of the fade out or other cinematic devices for ending a scene or sequence, it is often possible to work out some special treatment of the subject itself. For instance, the scene illustrated on this page might end a sequence within a picture or it might supply the ending for the whole film. To give the effect of a final fade out, it would only be necessary for the car to be driven away from the camera into the distance. Imaginative devices, such as this, can be used in dramatic films and even in scenics. Look for them and you will be surprised at the material that you will find.

Sound ■ The construction of a sound on film projector is highly complicated. Few mechanics are capable of converting a silent machine to sound, for it necessitates a thorough knowledge of amplifiers as well as the mechanical ability to rebuild the entire machine. The League occasionally gets requests for full information on converting a silent machine to sound, but this sort of service is beyond the scope of the League's work. In fact, the information cannot be obtained unless a competent engineer is engaged to design the complete conversion job. Obviously the cost of this procedure would be prohibitive in view of the comparatively small number of requests.

Sunsets ■ I have found that my color pictures of sunsets are much more pleasing when a two inch lens is used in place of the one inch objective. The size of the sun is doubled, of course, which makes a much more striking picture. I find that the two inch seems to be about right, whereas the three inch is a bit too large, tending to make a strained effect rather than an artistic one. Although it is best to use the two inch lens on a tripod, it is still possible, in an emergency, to hold it very carefully without undue motion resulting.—*Fred Campbell, ACL.*

Tape patch ■ A roll of white cellulose tape, such as that sold in stationery stores for wrapping gift packages, is handy as an emergency splicing aid. A short piece of the tape will hold a broken film together, allowing the show to go on. It is not necessary to match the perforations, as the patch is only temporary. The white color gives a contrast with the film so that the patch can be detected quickly when rewinding. The tape can also be used for making labels on reels and film cans, as it takes India ink very smoothly.

Iris out ■ Vignetters, producing an "iris out" which the movie maker may use in place of a fade out in ending sequences, can be attached easily to nearly every type of lens. It is rather difficult to build, with a regular lens diaphragm, a homemade one which will perform satisfactorily, because the aperture cannot be entirely closed. This is accomplished in the ready made vignetters by having one blade longer than the other, thus closing the hole completely when the diaphragm is shut down.

Neutral density ■ The neutral density filter has one purpose and performs that purpose only. It cuts down the amount of light passing through it. The very name, "neu-

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Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

New in New Jersey ■ Fourteen enthusiastic amateur cameramen became charter members of the Trenton Movie Makers, a strong new group recently organized in Trenton, N. J. First officers include George W. Guthrie, ACL, president; Dean H. Ashton, vicepresident, and J. George Cole, secretary treasurer. A constitution, based on a model supplied by the League's Club Department, already has been adopted, and standing committees will soon be announced. The club, which will meet monthly, has moderate annual dues and invites interested amateur movie makers of the community to learn more of its activities through Mr. Ashton, in care of the *Trenton Times*. Early programs have already featured the screening of medical films, by John H. McCullough, M.D.; *At the Seashore*, a color study, by Mr. Guthrie, and *The Iron Horse*, by Charles R. Dobbins, ACL.

Third for Rockville ■ *Broadway Interlude*, a three reel, 16mm. drama of music and murder on the Main Stem, is the latest and best production to be completed by the Rockville Cinema Club, on Long Island. Once again, James Malone has handled the story, assisted by Harry S. Smith, ACL, who fulfills his rôle as director and cameraman with his usual excellence. Virginia Jones, acknowledged star of the Rockville string of players, turns in her best performance to date, with the definitely interesting and able cooperation of Tom Brennan as a not too heroic hero. Others in the Rockville group who played important parts well include John and Peg Madigan, Ruth Wilcox, Maxime Ketledge and Mr. Malone. Among a large number of extras and bit players, the club was fortunate in listing the official cooperation of two members of the Rockville Centre Police Department. Credits for settings and properties are mentioned as usual for Dr. Harry Jaspin, Dr. Archie Harris and Mr. Madigan, veterans in this work.

Shot in "Soft Hat," from Northwestern University Cinema

Fred S. Niemann

New in Newburgh ■ On the banks of the Hudson, twenty amateur movie makers have met and organized the Newburgh Cinema Club, an amateur cameraman's group which will serve that city and the neighboring communities. Meetings will be held the second Thursday of each month in the Highland Engine Company club rooms. The newly elected officers of this strong group are Dr. William F. Small, president; Archie Stewart, ACL, vicepresident; Edwin Henderson, treasurer; Dr. Joseph E. McGrath, secretary. Ira Merwin, ACL, will serve the club as publicity secretary. After the business of the organization meeting, Mr. Stewart presented a program of his own 16mm. sound on film motion pictures.

Guest Night in Orange ■ More than one hundred members and guests of the Cinema Club of the Oranges, in New Jersey, recently enjoyed that group's second annual Guest Night program of films and other entertainment, staged at the Hotel Montclair, in Montclair. Harold C. Deuchler, ACL, president of this able group, presided over the presentations which featured the screening of *The Big Night*, a 16mm. record of last year's occasion, enlightened with many ingenious bits of humor; *A Day of Rest*, by William T. Vanderlipp, ACL; *Canadian Fairyland*, by Dr. C. Vincent Hall; *Autumn's Festival* and *Vagabonding Below Capricorn*, by Dr. Nelson W. Lockwood, ACL; *It So Happens*, by Mr. Vanderlipp; *An Excursion Ashore*, an anonymous production. Frederick G. Beach, ACL, and James W. Moore, ACL, of the League staff, spoke briefly during an intermission, and Charles J. Carbonaro, ACL, Frank Gunnell, ACL, and Phil O'Toole were introduced as guests of honor from neighboring movie clubs. All arrangements for this thoroughly successful public demonstration of the club's progress were under the direction of Dr. Stuart D. Forrest, chairman of the Guest Night committee.

Minneapolis ■ Movie makers in Minneapolis and vicinity have organized successfully in the Minneapolis Cine Club, and new officers are announced as follows: J. J. Huebscher, ACL, president; Frederick C. Lyman, ACL, vicepresident; Arthur A. W. Schwarts, treasurer; Ormal I. Sprungman, ACL, secretary. Jordan A. Penney, ACL, heads the program committee, while Leslie R. Olsen, ACL, has charge of membership. The club already has introduced a film rating sheet in its clinical screening of members' work, which will present a cross section evaluation of the club's opinion of each film screened, subdivided under four headings. Two reels of Kodachrome on Mexico, including a number of good sequences on bull fighting, were presented by Mr. Olsen at an early meeting and initiated the use of these cinema score sheets.

Boston doings ■ In Massachusetts, the recent activities of the Boston Cinamateur Club have included a session of indoor lighting and exposure meter experiments, designed to piece out the club's lighting demonstration reel, according to the report of Albert S. Genaske, ACL, secretary. At an earlier gathering, Percy Thayer and Mr. Olsen screened a program of 35mm. color and monochrome films for the club, which were compared by [Continued on page 221]

Sausages and sin

PAUL D. HUGON

BREATHES there a parent with a soul so dead that he has never of his offspring said, "He would be funny in the movies?" Probably there is none among the owners of movie outfits. But what kind of a story can you find that would require neither the expenditure of money for sets and lights, nor an amount of rehearsing that would exhaust the patience of all concerned? Is it possible to have some simple outdoor plot, for two or three children and an untrained dog, which would be amusing, easy to act, and still have a certain amount of dramatic suspense and surprise?

Yes, it can be done, if one remembers the great fundamental principle for the effective use of unskilled actors, which is, to break up the continuity into a multitude of very short, easy scenes, each requiring only that the actor carry out an everyday action without memorizing any words or gestures. It is when a person who is not trained in the ways of the stage is expected to go through a long scene, to remember in their right sequence a number of actions dependent one on another, that the strain produces an artificial result which completely mars the enjoyment of the story. With children, especially, memorizing a sequel of incidents inevitably leads to a stilted manner and, with such animals as are found in the average home, any complicated action is out of the question. The entire burden of the story, therefore, must be in the situation itself. Mistaken guilt is perhaps the simplest form that such a plot can take, since everything is cleared up at the end—the happy ending which is accepted as entirely desirable in juvenile dramas.

What can a dog do that will lead to his being accused wrongly? Stealing food is one answer. What kind of food? The kind most easily visualized, perhaps sausages, would be best. How will the dog's innocence be established? By finding out that somebody took the food.

So there is a situation which has only to be scenarized to become an easily acted home movie.

Synopsis

Mother sends the children to the store to buy frankfurters. They go along, taking the dog with them. As they return home, a neighbor boy calls out that he has a new toy. The sausages are laid on the porch, and the mother takes them in, unseen. When the children return, the sausages are missing, and the dog is lying asleep on the porch. The children decide that he has stolen them and that he will be sick. They fetch the doctor, take the dog's temperature, put him to bed in a doll carriage, bandage his stomach, etc., until the mother comes out with hot frankfurter sandwiches. Questions follow and the mother points to the porch, from which she took the package. The dog is exonerated and rejoicings follow.

List of scenes

1. Children playing on front lawn.

2. Mother comes out of front door, calls to them; she steps forward.

3. Children run up to Mother, who opens her purse, gives them some money and gives them directions as to size, etc. Children exeunt.

4. Street or sidewalk. The children, followed by the dog, come toward the camera on their scooters, "kiddycars" or a wagon; they pass by. (Additional shots of the same kind, ad lib., with entrances and exits in a direction that is kept continuous.)

Carefully tailored scenario for use with young actors

5. Outside the store. Children arrive, park scooters, etc., and walk in.

6. At counter (daylight; choose a bright, open spot near the entrance). Oldest child picks the frankfurters from the case; butcher shows them to the children and then wraps them; child pays. They start back. Plant the beginning of suspicion on dog by showing his interest here. (He might smell the package.) More street scenes, with package, ad lib.

Elizabeth R. Hibbs

Natural scenes of children at play precede the story

7. Exterior of home, from street. Children arrive. Oldest child walks up the porch steps, intending to go in. Dog follows. (Cut.)

8. Neighbor boy, holding a new shotgun or other easily seen toy, yells for "Jack! Jack!" (or whatever happens to be the name, boy or girl).

7a. Return to 7. Oldest child hears, turns around and looks. Cut back to 8. Boy shows from a distance his new toy. Signals with his arm, "Come on over!" Cut back to 7a. Oldest child's eyes glow; he puts down the sausages hastily on porch and runs down. Dog does NOT follow (or at least is not seen to follow).

9. Children come together, inspect new toy.

10. Porch. Mother comes out of front door, looks for children, sees her package and takes it in.

11. Oldest child remembers the sausages, in the midst of his playing. Tells the others he will have to go and take them in. Exit toward porch.

12. He arrives on porch, looks for sausages, cannot find them. He ponders, looks around and sees . . . (Cut.)

13. Closeup of dog asleep on porch.

Cut back to 12. Child shakes his head, has suspicions (a flashback to the plant in 6, if possible) and calls the others.

14. The gang arrives; they are

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A new Kodachrome

HARRIS B. TUTTLE

THE announcement, by the Eastman Kodak Company, of a new type of Kodachrome film for use with artificial light is the news of the month in the amateur movie world. This is the first definite step ever taken to simplify and to improve 16mm. natural color film for use with artificial light.

The announcement is of great importance, not only to amateurs interested in making interior artificially lighted pictures, but also to movie makers in the medical profession, photographers engaged in medical work and many other users of 16mm. color film for practical purposes.

Heretofore, to obtain satisfactory exposures, the movie maker has had to use more light than the average house is fused to carry. The medical photographer has had to use the artificial light compensating filter to obtain satisfactory color correction. The filter factor, which was about 4x, or two diaphragm stops, has limited materially the extensive use of Kodachrome in medicine and surgery.

Two general types of light are suitable for making movies—the natural outdoor daylight from the sun, and artificial light. Both types of light have definite color characteristics. The color value of daylight depends not only upon the time of day and time of year but also upon the condition of the sky and atmosphere. So, while regular Kodachrome film is fundamentally a daylight film, it is balanced for noonday sunlight. However, pictures made on it anytime between nine o'clock in the morning and four o'clock in the afternoon are satisfactorily rendered. Before nine and after four, the sun's rays are much redder, and therefore pictures made before or after these hours appear redder when they are projected.

New film increases scope of interior color movie making

Artificial light also varies in its color, depending upon its source and temperature. For instance, tungsten lamps, Photoflood bulbs, Neon lamps and carbon arcs, all types of artificial light, differ in their color characteristics.

The light from arc lamps varies in color, depending upon the type of carbon used; white flame carbons, for instance, give light very similar to noonday sunlight and, with a light of this type, regular daylight Kodachrome should be used rather than the new film.

New offering for color filming with artificial lights

Tungsten lamps produce a light that is quite red in comparison to sunlight.

Photoflood bulbs are overvolted tungsten filament lamps and, while the higher temperature at which they burn emits more blue radiations, their color is still quite red when compared to sunlight. Since Photoflood lamps are inexpensive and are readily available, they have been more or less generally accepted as an amateur standard artificial light source.

To make an artificial light emulsion practical, it is obvious that it can be made to match only one type of light source. Since Photoflood lamps are most generally used, the new type "A" artificial light Kodachrome is manufactured for color balance with these lamps. While pictures made on it with regular tungsten filament lamps will be quite satisfactory, the critical color photographer will note a tendency toward ruddiness because of the excessive red in the regular tungsten bulbs. This ruddiness is not usually observed when new lamps are used and are burned at their proper voltage.

Inasmuch as no filter is necessary when the new type "A" film is used with Photoflood lamps, it is effectively four times as fast as the regular Kodachrome film, when the blue compensating filter is used. This means that only one quarter as much light is necessary, or that, with a given amount of light, an area four times as large can be filmed as compared to the daylight film with filter.

Since this new film is extremely blue sensitive, it is obvious that every precaution must be exercised in keeping all daylight out of a room when it is being used. If daylight is present, the resultant pictures are quite weird, for the shadows pick up the daylight and are photographed with strong emphasis on the blue. This is particularly noticeable in medical films. Most operating rooms have north sky light, and, since north sky light is much bluer than sunlight, care must be exercised to exclude all of it from the room.

It can be seen from these data that, if the new film is used in daylight, the resultant pictures will predominate in the blue, just as regular Kodachrome predominates in the red when used with artificial light and without the blue filter.

Those who want to use the new artificial light film out of doors in daylight will find it necessary to use a light orange filter for color correction. This filter will be available in the near future. Of course, interesting moonlight or night effects can be made by using the new film out of doors without the filter and purposely slightly underexposing the scene.

The new film is fast enough to make pictures of illuminated street signs at night. Times Square in New York City, for instance, offers many possibilities for attractive color pictures of this type. Satisfactory exposures can be made of such subjects at *f*/1.9 and with the standard camera speed of sixteen pictures a second.

The new type "A" Kodachrome is similar to daylight Kodachrome in its exposure characteristics; namely, that the exposure must be judged fairly accurately to obtain the best results and the subject contrast must be kept low by using a soft, flat lighting. The film is [Continued on page 220]

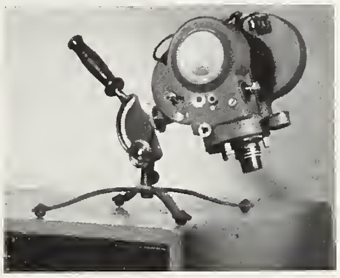
News of the industry

RUSSELL C. HOLSLAG, ACL

8mm. speed camera ■ Because of the excellent reception of the superspeed model of the Filmo Straight 8 camera, the manufacturer, Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Ill., has decided to produce a similar model of the Filmo Double 8. This means that those who make use of the Eastman Kodak double 8mm. film, which is later split after being exposed, may acquire a camera which provides four filming speeds—16, 32, 48 and 64. The Filmo Straight 8 superspeed model has but one more speed adjustment; namely, the one of twenty four frames a second. This camera uses the pre split Filmopan 8mm. film. In producing the superspeed model of their Double 8 camera, the makers announce that they are actuated by a desire to maintain the Bell & Howell reputation for making available the finest in camera design and versatility for every medium.

New Kodachrome ■ A color emulsion specifically adapted for use with artificial light is featured in the new "Type A" Kodachrome, announced by the Eastman Kodak Company, Rochester, N. Y. Since the regular incandescent lamp gives a light having a greater proportion of red and yellow than does daylight, a color film balanced for daylight will, naturally, show an unbalanced effect when used with artificial light without a filter. If a filter is used, much more light has to be supplied to compensate. The new Type A Kodachrome does away with the necessity for the use of a filter, since the emulsion is so adjusted that it reduces the effect of an oversupply of red and emphasizes the blue. Thus it compensates for the overabundance of redness in tungsten light and gives balanced color pictures with this illumination. Type A film is said to be specifically balanced for Photoflood bulbs, but it will also render good results with other bulbs of the tungsten filament type made for photographic lighting, particularly the overvolted variety. The new film is about four times—or two diaphragm openings—faster than is the regular Kodachrome when used with artificial light and filter. Type A Kodachrome may be used in daylight with the aid of a filter, but it should not be used with daylight and artificial light in conjunction if true color relationship is wanted. The price of the new film is the same as that of regular Kodachrome. At present, only 100 ft. rolls are offered.

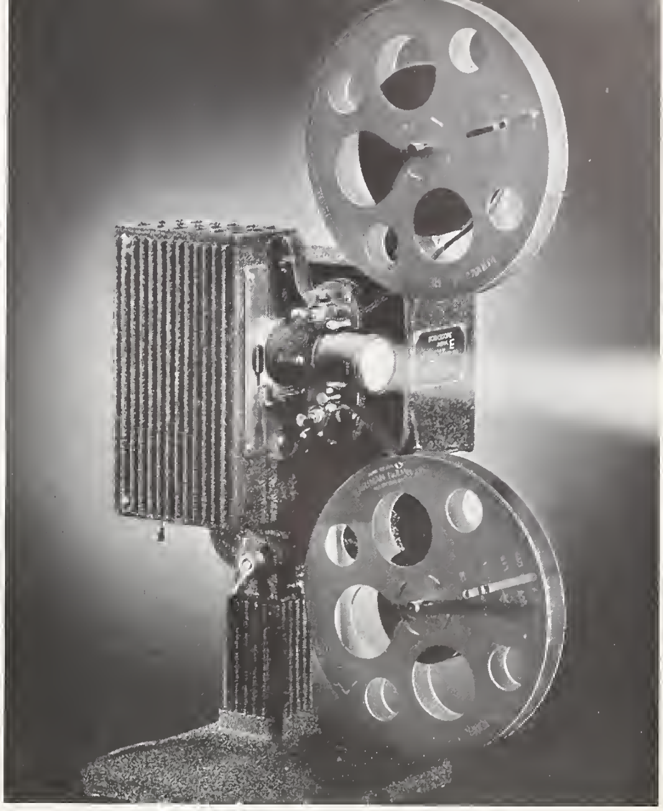
Photographs by Irving Browning



Flex-A-Pod, clever table camera support made by Photographic Specialties

Samuel R. Burns ■ In the recent death of its president, Samuel R. Burns, the International Projector Corporation, of New York, has lost a valued and beloved executive and the industry has lost a leading figure. Mr. Burns was known personally to members of the headquarters staff of the League, who thus feel doubly the loss of this outstanding personality in the motion picture field. Mr. Burns became president of the International Projector Corporation in 1932. Earl G. Hines has now been elected to succeed him.

Answers the query "What's new?" for amateur and dealer



New Kodascope E, a projector in the medium price field

Wall sound ■ The latest development in a 16mm., single system sound on film camera using the variable density method of recording is the Wall 16mm. Sound and Picture Camera, recently demonstrated. The instrument seems fully adapted to the needs of practical sound recording in the 16mm. medium and has many features which characterize a camera of the heavier studio type. A four lens turret is provided and two $f/3.5$ lenses, one of 25mm. and the other 95mm. length, are furnished. Direct focusing is offered through a screen and magnifying eyepiece. An erect view finder is provided, with masks defining the fields of various lenses, and an ingenious device provides positive compensation for parallax. The camera is simple to thread, as there are only a single large sprocket and a single claw. An interesting feature makes possible the reversal of both sprocket and claw, so that left or right hand single perforated film may be used. The recording unit is of the glow lamp type, which provides for modulation of the slit width of the entire available sound track area. The Wall camera is equipped with an accurate footage counter, a tachometer to read film speeds and 400 foot magazines. A 12 volt direct current motor drive for battery operation on location is standard equipment, but a synchronous motor drive for operation on A. C. may be had if desired. A well designed amplifier and self contained battery power supply are com-

[Continued on page 223]

Swing into Spring

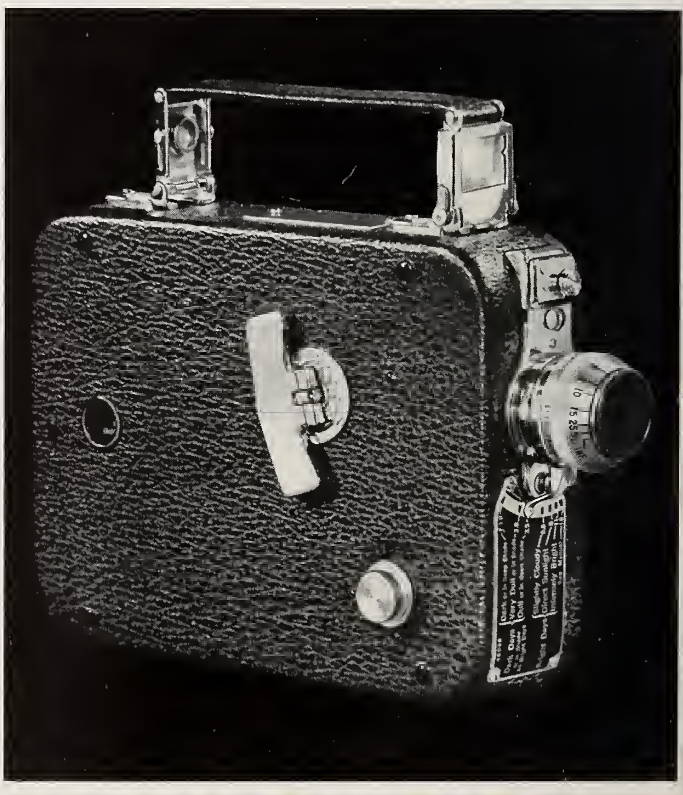
WITH A NEW CINÉ-KODAK

The New 16 mm. Magazine Ciné-Kodak

Loads in 3 seconds. No threading—the film comes in magazines. "Pan," Super Sensitive "Pan," and Kodachrome magazines are instantly interchangeable. Half speed, normal, slow motion. New design lens-finder system serves standard lens and four telephotos. These, and many other advantages in this $125, 16 mm. camera—including *f*.1.9 lens.

The Inexpensive Ciné-Kodak Eight, Model 20

Far more capable than its low price would indicate. Makes the very finest black-and-white movies on low-cost Ciné-Kodak Eight "Pan" Film under all normal picture-making conditions. Automatic footage indicator, built-in exposure guide, eye-level finder. $34.50 with *f*.3.5 lens. The Model 25, similar in appearance and with *f*.2.7 lens, is priced at $45.

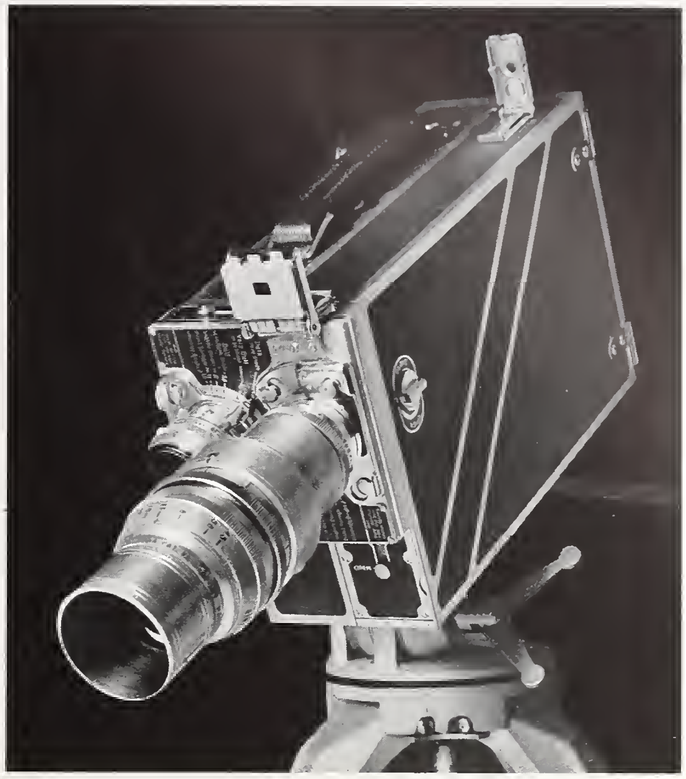


The De Luxe Ciné-Kodak Eight, Model 60

Exceptionally capable, unusually smart in appearance and performance. Its standard *f*.1.9 lens is interchangeable with a 1½-inch telephoto. Exterior is finished in two-toned gray cowhide and brilliant chromium; interior in chromium. Definitely, the finest of the "Eights." Price, with *f*.1.9 lens and handsome carrying case finished to match, $91.50.

The Popular 16 mm. Ciné-Kodak, Model K

TAKING 100-foot film rolls instead of 50-foot magazines, the famous "K" is somewhat larger than Magazine Ciné-Kodak. Standard or half-speed. Eye-level finder and waist-height reflecting finder. Easy interchanging of standard lens, four telephotos, and wide angle lens. Sturdy, compact, for years the 16 mm. leader. $112.50, with *f*.1.9 lens.



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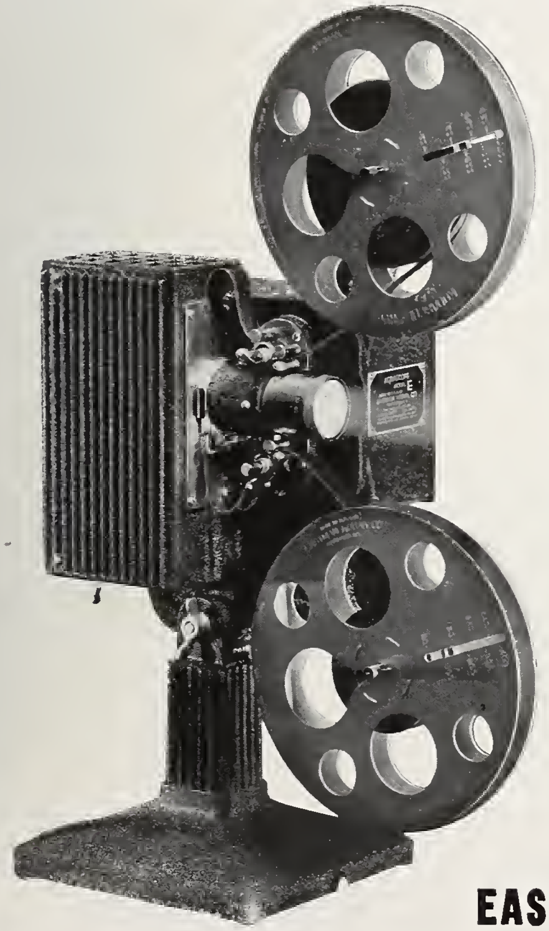

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$39.50 lens and lamp, extra. $54.50 with 2-inch *f*.2.5 lens and 400-watt lamp.

EASTMAN KODAK COMPANY, Rochester, N. Y.

The basis of Kodachrome exposure

[Continued from page 199]

chromatic film (a hazy sky, no sun, *f*/5.6 light), an average subject can be given three full diaphragm stops more or three less than the correct exposure and it still can render a satisfactory picture on black and white reversal film which is given compensation in processing. (See Figure IIIA.)

With the X type, or low contrast subject, it is possible to make many more exposure changes and still obtain a satisfactory picture.

This is all the result of the wonderful exposure latitude of reversal film and the automatic printing that may be applied in processing it.

Just think of it! With a subject of average contrast in average lighting, which would fall in the center of the exposure scale if exposed at *f*/5.6, one can expose all the way from *f*/16 to *f*/1.9 and still obtain a satisfactory picture. In spite of errors in personal judgment and everything else that can go wrong, we can obtain satisfactory pictures on black and white film with almost any reasonable guess.

We of course fail when we try to make beach pictures in bright sun at *f*/1.9 or pictures on dark overcast days at *f*/16. The above doesn't mean that anybody should ignore suggestions for improving exposures, for exposures made near the center of the scale (between B' and C in Figure I) render the best results, and anything that can be done to achieve this is worth while.

With black and white pictures, extremely bad cases of overexposure can be treated with an intensifying bath in an attempt to build up the silver density of the final positive. Likewise, an underexposure can be put through a reducing bath to make it more transparent. These are both after treatments which are applied as a last resort.

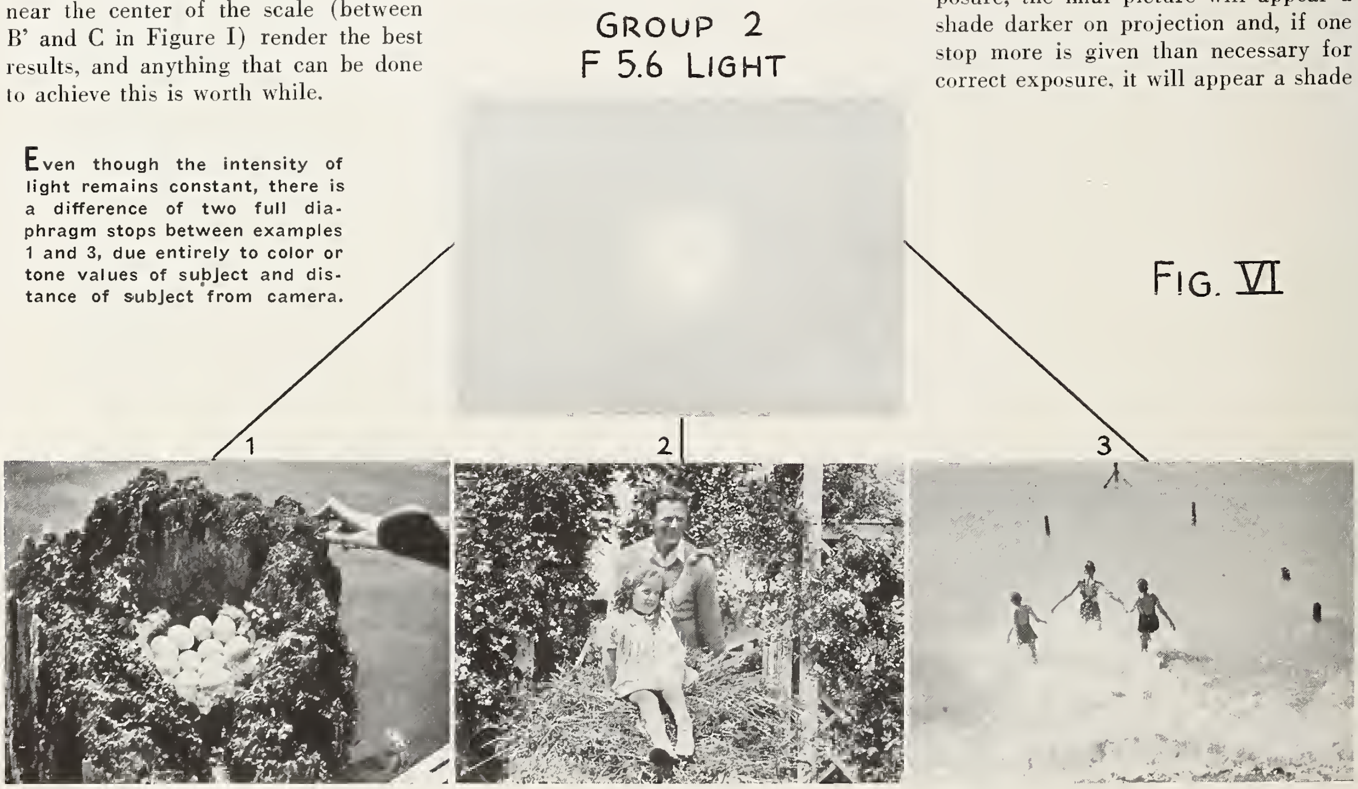
Kodachrome film, in addition to having a color sensitivity different from black and white panchromatic, is slower in speed (its response to a given intensity of light is less) and also it has less latitude (a shorter exposure range) than panchromatic.

If we were to express the relation between the two films in curves, the difference would probably be something like that illustrated in Figure IV.

The distance between D and D' is much shorter than that between A and A' on panchromatic. The center of the exposure scale for Kodachrome has moved along the exposure axis one step from that of panchromatic, requiring about twice the exposure to reach the same relative position on the scale, or one diaphragm stop larger. If we were to consider subject contrast now, and refer to the brackets X, Y and Z (see Figure II), we would note that Z would never fit and that, instead of moving Y three steps each side of the center of the scale, one step each side is the limit. (See Figure IIIB.) A flat subject, such as X, could be moved two steps in each direction. In other words, it could be exposed two stops larger or two stops smaller and still render a fairly satisfactory color picture.

It must be remembered that in black and white films we have only one emulsion coated on the film base. In Kodachrome, we have three emulsions, coated one on top of the other with coatings of gelatin in between. Each of these three emulsions must have entirely different characteristics, for the bottom layer is a red sensitive emulsion, the center green sensitive and the top layer blue violet sensitive. Through the range or area of correct exposure D to D', the curves of all three emulsions superimpose. Therefore, true color rendition can be obtained only by estimating the exposure accurately enough so that it will fall into the center or D to D' area of the scale. This is another reason for flat lighting, for, by reducing subject contrast, truer color rendition is possible. If, with contrasty subjects, the extremely light and dark tones fall beyond the range scale of the emulsion, or outside of D to D', the color qualities of these extreme tones will not be correctly rendered.

Another important difference is the fact that the automatic printing feature in processing cannot be applied to Kodachrome. If the exposure is correct and falls in the center of the exposure scale, the resultant picture will be satisfactorily rendered, but, if the picture is given one stop less than correct exposure, the final picture will appear a shade darker on projection and, if one stop more is given than necessary for correct exposure, it will appear a shade



Even though the intensity of light remains constant, there is a difference of two full diaphragm stops between examples 1 and 3, due entirely to color or tone values of subject and distance of subject from camera.

FIG. VI

Darker than average and closeup

Use ½ stop more for closeup and ½ stop more for dark tones.

Expose at *f*/3.5

Average view

Give normal exposure for group 2.

Expose at *f*/5.6

Lighter than average and distant

Use ½ stop less for distance and ½ stop less for light tones.

Expose at *f*/8

lighter. If *f*/5.6 were the correct exposure and *f*/2.8 were used (two stops larger), the picture would appear quite light and washed out on the screen, with little or no color in faces and other light areas. If *f*/11 were used (two stops smaller than the correct exposure), the picture would be much too dark on projection, there would be no detail in shadows or dark middle tones and the entire picture area would be dense and dark when projected. All this is apparent if you project your films at the proper size for the wattage of your projection lamp. On panchromatic film and with automatic printing, these differences in exposure would not show appreciably, but on Kodachrome it would make the difference between success and failure.

To review briefly, we can say that Kodachrome film is a stop slower than panchromatic, *provided that you are able to judge exposures for panchromatic accurately enough to place the exposure in the center of the exposure scale.* Kodachrome has a much shorter scale than black and white film, which is an inherent characteristic of color films. It does not have the advantage of automatic printing in processing common to one make of black and white film. It will not render contrasty subjects as faithfully as black and white film, and therefore it should be used with a soft, flat lighting when possible. However, some very effective views can be made with contrasty lightings. It is also impossible to apply any after treatment to Kodachrome film, such as intensification or reduction.

The next question is how are we going to find correct Kodachrome exposures for a particular subject? I believe my guide to be as nearly foolproof as it is possible for a system of determining exposure to be.

Inasmuch as daylight requires an entirely different exposure guide from that of artificial light and the two cannot be combined, we will consider only the outdoor natural daylight at this time.

Outdoor daylight has many variable factors:

1. Condition of the sky: cloudy, hazy or clear.
2. Time of day: early morning, late afternoon or midday.
3. Time of year: a midday winter sun in the north is similar to a late afternoon sun in the summertime.

There are certain other variables in making outdoor pictures which must be considered. The general color tone of the subject is important. Light colored objects, such as yellows and other pastels, are similar to white, inasmuch as they reflect considerable of the light falling on them. Medium tones of color reflect an average amount of light and dark colored objects, such as purples,

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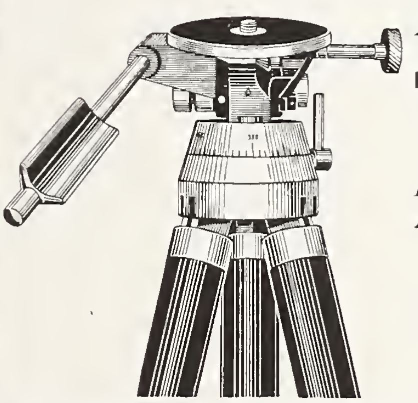

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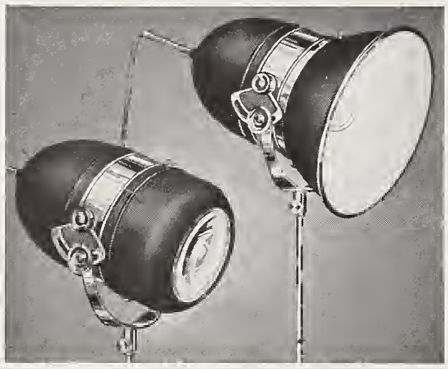

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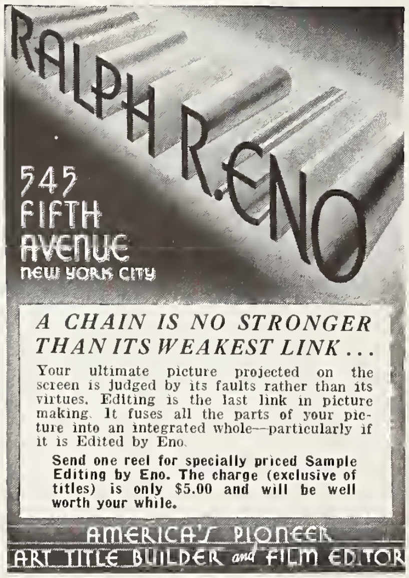

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deep blues and dark reds, behave more like blacks, inasmuch as they absorb a large percentage of the light that falls upon them.

When making color pictures on Kodachrome, all these above named factors have some influence on the estimation of the correct exposure.

For all practical photographic purposes, it has been found possible to classify the sky and sunlight conditions into about four general groups:

1. Average bright sunlight—no clouds over sun, no haze, clear blue sky, sun casting strong shadows.
2. Hazy sun—some clouds, some haze, position of sun just visible in the sky, sun casting gray shadow.
3. Cloudy—overcast sky, sun's disc not visible, no shadow from sun, but fairly bright.
4. Very dark, cloudy, sun not visible in the sky, no shadows, a threat of rain.

Here we have the average conditions for picture making. They can be used as a means of classification of the sky conditions. (See Figure V.)

When making Kodachrome pictures, arrange the subject so that light comes from in back of the camera and illuminates the subject with as flat an even lighting as possible (thirty degrees to either side of the camera is permissible).

Pictures of subjects ten to twenty feet from the camera, flatly lighted and of an average color tone, being neither predominantly light nor dark, can be classified as average subjects. When filming such subjects, follow the above sky chart exposure guide.

Other types of scenes, such as closeups, distant views, light or dark colors, side or back lighting, are abnormal in the classification, and therefore it is necessary to make some compensation in exposure when filming subjects under these conditions, which may be summarized as follows:

1. Closeups (two to four feet from camera).
2. Dark colors (dark purples, blues or reds).
3. Side lighting (sun right angles to subject).
4. Before 9 a.m. and after 4 p.m.
5. During November, December, January and February, the dark winter months in the north, open up one half stop for each condition. (This applies only in the north. Winter light in Florida, for instance, is comparable with summer light in the north.) (See Figure VI.)

For distant views (mountain, over water, etc.) and light colored objects (yellows, pinks, pastels), stop down one half stop for each condition. (See Figure VI.)

For example, the sky chart shows sun to be in group 2, calling for a stop of *f*/5.6. If you want to make a closeup of a subject which is darker than average, open up one half stop to halfway between *f*/3.5 and *f*/5.6 for closeups and open one half stop more for dark colored subjects, or expose at *f*/3.5.

Let's take another case. The sky chart shows the sun to be in group 2, indicating a stop of *f*/5.6. If you want to film a distant scene of sailboats with white sails, fleecy white clouds in the background, stop down one half stop to halfway between *f*/5.6 and *f*/8 for distant scenes and one half stop more for light colors, or expose at *f*/8. The smallest stop that I ever use is halfway between *f*/8 and *f*/11. I use this for distant beach scenes in bright sunlight. (See Figure VI for other examples.)

If the subject is back lighted, use one full stop larger than sun chart.

If the subject is in complete shade, caused by a building or trees, use two full stops larger than that which the sun chart indicates, in addition to other variables.

It is fairly easy, by keeping the seven primary variables in mind (and it is only necessary to consider from two to three at one time), to obtain excellent results with Kodachrome.

As a starting point with any type of film, it is advisable to make a camera exposure test. I usually purchase a fifty foot reel of any new film announced, select an average subject and make a series of shots, one at the stop that I judge as being about right and four additional shots using two smaller diaphragm openings and two larger openings. I do this for each of the four types of lighting conditions outlined in my guide. When this is returned from processing, I am able to determine which diaphragm opening gave the best exposure for each of the groups of sky conditions. I have been following this plan of judging exposures for several years now with excellent results.

Going to Mexico?

[Continued from page 200]

When you have finished, wander around among the stalls in front of the cathedral until you find the trained canary birds; then open up your lens and get something that is unusual.

Take the next trip to the Pyramids of San Juan Teotihuacan. You'll have a task in deciding what not to film down there. Even the pretty little park has its blossoms that make beautiful color shots. After your legs have deposited you safely at the top of the Pyramid of the Sun, you will find a magnificent view. Test the light now and then and resist making exposures between 11 a. m. and 1 p. m., because of the lack of shadow contrast. In inspecting the

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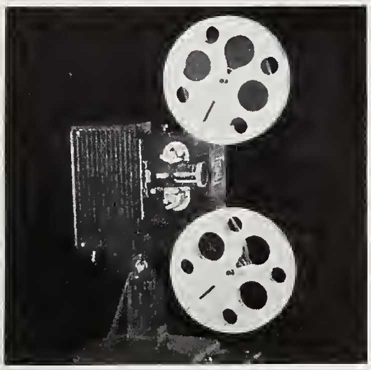

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stone age treasures in the regional museum, if anything in the show cases attracts your photographic eye, a request to the attendants will generally bring permission to photograph it. Do not overlook the open air auditorium nearby; climb up back of the stage and make a comprehensive view of the auditorium, the gateway and, in the near background, the colossal Pyramid of the Sun.

If you have an archeological interest, retrace your steps to Guadalupe, then veer northwest to Tenayuca and film the prehistoric pyramid there. If the day is yet young, you may motor up to Tepozotlan and find one of the best remaining specimens of the Churrigeresque type of church architecture ready to pose for you. Returning, stop at some hacienda and obtain permission to film *ad libitum* in the fields of maguey. This maguey yields pulque, which in turn furnishes a wonderful though very smelly intoxication.

Along the way comes plenty of opportunity to film the natives. For that purpose, I carry a large handful of five centavo coins (360 centavos equal an American dollar) as rewards for posing. Keep your weather eye open for wayside laundries, where the native lays the garments upon a large, flat rock at the stream edge and massages them with a good, sturdy club. You'll generally find kiddies there, and they are not above monetary temptation. Incidentally, it is interesting to show a sequence of the different kinds of laundries in old Mexico, from the wayside washing to the municipal tubs, in towns of five to ten thousand.

Finishing with Popocatepetl, motor on down south through Chalco, Yextapixtla, Yautepec and finally to Cuautla. In any of these places, you'll find plenty of material for sequences. Only two miles from Cuautla, one finds the most famous of Mexican spas. Have a swim and then do a little work with your camera upon the swimmers and divers, filming them under the crystal clear water. If it is a nice day overhead, step across the road to the *cantina* and, with a telephoto and filters, make some magnificent views of old Popocatepetl and his companion. The average Mexican down here will trade you smile for smile and offer his first. If you are pressed for time, now is the time to complete the "circle" tour, by returning via Cuernavaca, a society resort and historically interesting because of Cortez and Borda.

My latest venture in continuity themes down in old Mexico was founded upon transportation, from the mighty motor to the bucolic burro, including the *porteros*. It is surprising to note the amount and variety of things that can be entrusted safely to a donkey's back.

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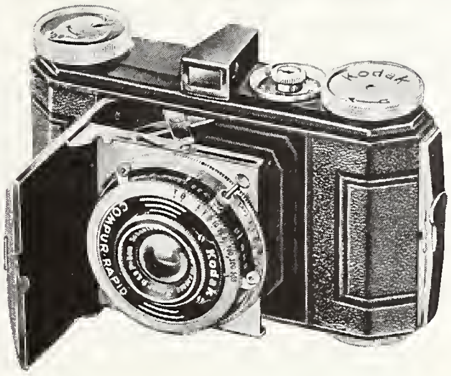

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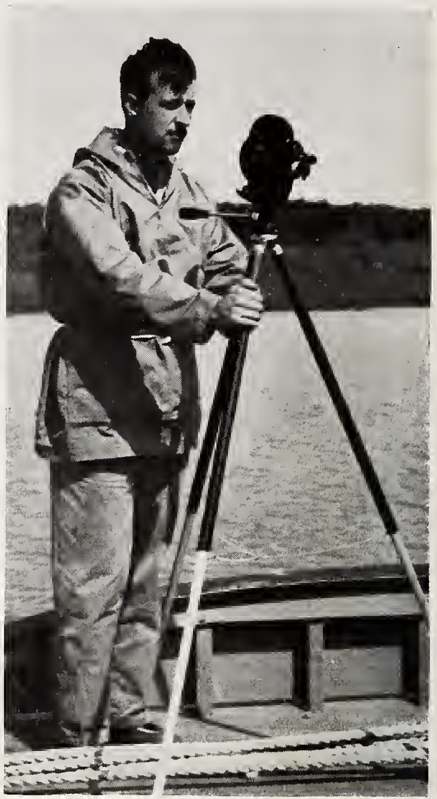
Closeups—What filmers are doing

In New York City, Duncan MacD. Little, ACL, and Mrs. Little have held their seventh Annual Movie Party with customary success. Before a gathering of more than forty friends, there was presented a program of ten amateur motion pictures, six in black and white, four in color and all accompanied by music from double turntables. The films were *India*, by L. L. Hanel; *Four Centuries After Cortez*, by Charles R. McLendon; *Lights and Shadows*, by Irving W. Lyon; *Moroccan Cities*, by Gwladys W. Sills, ACL; *Experiments*, by Edward K. Warren; *More Experiments*, by Mr. Little; *Bermuda*, by Berton J. Delmhorst, ACL; *Norway and the Arctic Sea*, by Paul E. Vernon; *Happy Day*, by T. Lawrenson; *In The Beginning*, by Fred C. Ells, ACL. Except the last two pictures, all the films screened were drawn from the work of the guests, selected for the occasion by a committee composed of Eileen Creelman, film critic of the New York *Sun*; Frank S. Nugent, film critic of *The New York Times*, and W. T. Benda, artist and creator of the Benda masks. On the technical staff for Mr. Little were Elfriede Boerner, music librarian; Mr. Delmhorst, chief projectionist, and George T. Gillins, assistant projectionist.


Bell & Howell

Richard Finnie, shooting with Filmo on the Mackenzie River

If you live in or near Philadelphia, Nashville, Little Rock, Dallas, El Paso or Oklahoma City, you may be interested in getting in touch with Winfield S. Shannon, ACL, who wants 16mm. reversal footage of any or all of these communities. It seems that Mr. Shannon, a pilot for American Airways, took a busman's holiday recently by air cruising around the country. During his stops in the cities mentioned, though, he missed getting proper scenes, and so he is appealing for cooperative aid from his fellow members. He will be glad to send the necessary film or will entertain offers for swapping scenes that he can film himself for scenes of your community. Get in touch with him in care of the League offices.

Probably you have thought at least about going to Mexico on vacation, even if you are not this minute packing up for the journey, so that you will be interested in the filming treatment worked out by Charles R. Dobbins, ACL, of Trenton, N. J. *Historic Valley* was his suggested lead title, which will give you pretty neatly the basic idea of the new plan. The great upland valley which cradles Mexico, D. F., reasoned Mr. Dobbins, is an open book of the country's history, waiting only to be read and recorded by those who have eyes to see. There the Aztec, Indian, Spanish and modern Mexican cultures each has left its impress, chapters in the strange, tragic, yet always colorful history of Mexico. We are glad to pass on Mr. Dobbins's scheme to you, secure in the knowledge that no two movie makers will film the same interpretation of it.

When you come to such a lucky pass that more of your friends want to see your films than can be accommodated in your home, you'd better do what Harriet A. O'Brien, ACL, did so successfully in Boston—hire a hall! Miss O'Brien's "hall" was the Ruby Room of the Hotel Touraine, where she packed in more than 250 friends and their guests for a program of her films, entitled *An Evening of Travel in Celluloid Land.* Joseph Dephoure, ACL, managed the well run projection and Miss O'Brien dressed up the occasion with a printed program, a lady at the piano, a master of ceremonies and a brace of usherettes.

T. A. Willard, ACL, a League director, is one of Mexico's most faithful fans. Only the other day he dropped us a note from Merida, in Yucatan, where he has gone for his annual assault on the mysteries of Mayan antiquity. Chichen-Itza, he claims, is "only forty miles from Heaven," what with the swell photographic light. Since this is his twentieth visit, he ought to know.

Practical films

■ The varied glories of the State of Maine as a haven for fishers, hunters, yachtsmen and other vacationists are now pictured for the first time in full color, with the production by Harrie B. Coe, ACL, of three reels of Kodachrome on this subject. Mr. Coe, as manager of the State of Maine Publicity Bureau, is a veteran in the field of cine publicity.

■ The facilities and activities of Waubeeka, summer camp at Copake, N. Y., of the Bronx Valley Council of the Boy Scouts of America, have been delightfully pictured in five hundred feet of Kodachrome by the T. W. Willard Motion Picture Company, known for its earlier Ten Best award winner. *London Terrace*. Waubeeka serves the Westchester County communities of Bronxville, Tuckahoe. Crestwood and Mount Vernon and is managed by Howard S. Anderson who, as technical director, collaborated closely in the production of the film. A swift and effective cinematic introduction marks this generally excellent film which is being used generally for propaganda and indirectly for the solicitation of funds among the constituents of the Bronx Valley Council.

■ The celebrations marking the one hundredth anniversary of the founding of Marietta College (1835-1935), in Marietta. Ohio, have been fully recorded on film by Dr. R. D. Pinkerton, ACL, financial secretary of the institution, and will be used widely throughout the coming year in screenings before alumni and friends of the college. In two reels of 16mm. film, Dr. Pinkerton has pictured both the scholastic ceremonies and the athletic contests which were featured in an elaborate program of reunion festivities. Famous and favorite personalities of the campus are given a pleasant place in the charming color sequence of the president's reception, which climaxes this valuable record subject.

■ Working with the full cooperation of the State of Colorado Motor Vehicle Department, the State Courtesy Motor Patrol and the Denver Police Department, John E. Burleson, ACL, of Denver, has been producing a one reel 16mm. film on highway safety, which will be shown throughout the state in schools and clubs. Common sense driving will be the message of the reel, which stresses the point that traffic laws are designed to help the motorist rather than to hinder him. Highlights of the newly required state driver's license examination and the friendly supervision on the highways of the State Courtesy Patrol are featured in this important contribution, by amateur movies, to the current nation wide drive for highway safety.

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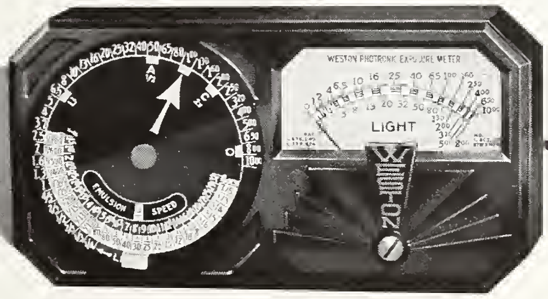

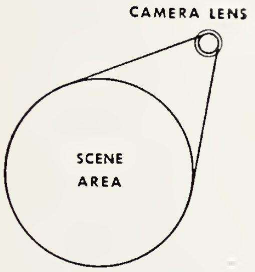

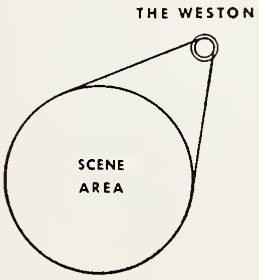

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Sausages and sin

[Continued from page 203]

told in whispers, with side glances at the sleeping dog. Younger child goes to dog (separate shots as required, with closeups etc.), shakes the dog awake, scolds him.

15. Closeup of dog.

Cut back to 14. Children pick up dog, feel his stomach, look inside his mouth. They take him away.

16. Front yard. Dog is put in wagon and is driven away by the gang.

17. Arrival in front of doctor's office. They ring the bell. Neighbor child, dressed up as doctor, with spectacles, silk hat, bag, etc. (ad lib.), appears. Consultation on front steps.

18. (Closeup.) Thermometer is pushed into dog's mouth. Verdict is unfavorable.

19. One of the group holds the dog while doctor opens bag, takes out bandages and scissors, cuts a long swath and bandages dog's stomach.

20. Dog, bandaged, is put back on wagon and taken home. (Ad lib., some playing ambulance, some speed cops, etc., with great show of speed.)

21. Arrival home. They take dog out of wagon, transfer him to a doll buggy, etc.

22. Doorway. Mother appears, holding several sandwiches (rolls, with frankfurters sticking out). She calls to the children to come and get their lunch.

23. Children look up from tending the dog, rush up.

24. Children arrive at Mother's side, look surprised.

25. Big closeup of rolls, showing frankfurters.

26. Questions, with pointing fingers. Mother explains, with a gesture toward porch, that she took the sausages herself. Children are delighted, grab the lunch, then suddenly remember the dog.

27. Closeup of the children's faces, feeling guilty; then they laugh.

28. Long shot. They run down porch steps toward the dog, release him from his bandages and start eating.

29. Closeup of the dog as he looks up at the children eating. He sits up and begs.

30. Children notice him, feed him a piece of frankfurter. Fade out.

According to the children's age, even these scenes may be cut up into shorter ones, by cutting back to other scenes or by inserting closeups in the medium and long shots. Any change of camera angle makes it possible to interrupt a scene, so that it will never be necessary to maintain a long effort of attention. As soon as any of the participants makes a mistake, or looks at the camera, or appears self conscious the cameraman simply stops the camera and changes his angle, going back into the story a

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short way, so as not to miss any of the action. If the dog is capable of quizzical expressions, a number of closeups should be made at the start, without other people in the scene, and these can be cut in whenever they fit and whenever the action has been interrupted.

A cat may be used in place of a dog, and complicating incidents may be added as desired. Complete entrances from outside camera range, and complete exits from camera range, should be made carefully each time, to avoid jumps in the screen continuity. If the scenes are taken on different days, the greatest care will have to be exercised to match the clothes perfectly, laying aside those used on the first day as soon as the shooting is through, for fear they may become soiled and may not look the same. Children and animals are good actors as long as they are expected to do what they know and understand.

Trees plus titles

[Continued from page 195]

We made these scenes of a tenacious little tree clinging to a rock with the wild sea beating all about it. You'll surely get a shot that will fit like a shoe. Wherever there are rocks, you'll find trees growing out of them, under them or over them in a most miraculous manner.

Title 14. *Courage to hold on tight to life—*

Take a closeup of the same tree. Fade out and into:

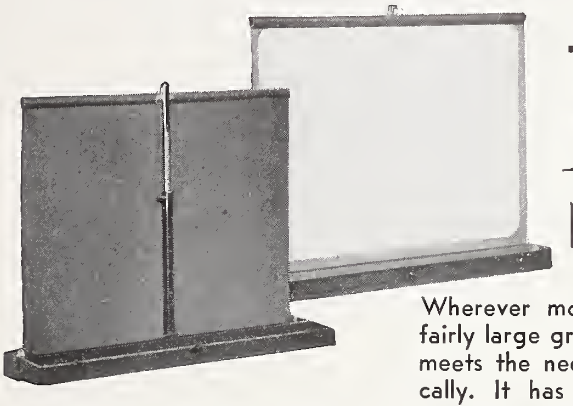
Title 15. *Films are made by fools like me*

But only God can make a tree.

Take the sun setting behind trees or any other general scene of beauty and of peace which includes trees.

This by no means concludes the subject of trees. If you have any film of logging or paper making or any of the many industries in which trees play a part, just cut your shots into the picture, with titles in the same vein. Maybe there's a two thousand year old juniper standing in your neighbor's backyard. Maybe you live in California and can drive your car through the tunneled trunk of a giant redwood. Maybe you've garnered your film in foreign lands and the collection includes one of those curious trees from which gifts to the gods are hung. From railroad ties to telegraph poles—all these have a place in your picture on trees. From trees that survive in the desert to the miniature Japanese tree growing in a tiny lacquer bowl on your library table—all these have a place in your picture on trees.

You don't have to travel afar to corral your subject. You can carry your lunch and camera into any public park—and you'll find your subject there waiting for you.



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A new member of the League's board

John V. Hansen, newly elected a director of the Amateur Cinema League, Inc., has achieved a distinction and renown in his chosen field that but few movie makers have attained. He has not won this eminence as a skilled movie maker casually or accidentally, for his interest in filming amounts to devotion and he has brought to it both scientific skill and artistic training—a combination that is rare enough but which exactly fits the needs of expert cinematography.

Mr. Hansen was born in Denmark, where he received his early education and began the study of engineering. He came to this country in 1900 and continued his studies, first at Brooklyn Polytechnic Institute and later at Massachusetts Institute of Technology. He was ten years with the Western Electric Company in various capacities in reconstruction and efficiency work and later he was manager of the Eastern Sales Department of the Sloane Valve Company. After a period, he represented the Audiffren Refrigerating Company in Europe. He became interested in coal lands and, in 1925, retired from business and has since devoted himself to travel, study and particularly to movie making.

In 1910, Mr. Hansen became a still photographic enthusiast and achieved recognition in many salons. He compiled a large collection of negatives representative of his travels and his interest in all forms of art and architecture. Strange as it may seem to many filmers who know Mr. Hansen's absorbing interest in movie making, he did not greet the idea initially with any warmth. Mrs. Hansen suggested that he get a movie camera but he was not enthusiastic—quite the reverse. Nevertheless, Mrs. Hansen persevered and ordered an outfit for him. The first reel displeased him and he felt that movies did not offer a field for a true photographer. However, Mrs. Hansen sagely pointed out that this was an entirely different medium and, in all likelihood, he did not know what he was doing! This seemed to put Mr. Hansen on his mettle, for the second and third reel pleased him more and aroused his interest.

John V. Hansen, elected to the ACL board of directors

He determined that he was dealing with an entirely different medium and that he would have to restudy lighting and composition. Then came the revelation of what could be done in planning and editing, and Mr. Hansen dropped still photography and became a dyed in the wool movie maker.

Mr. Hansen says, "I was satisfied with black and white movie making but, when color was made available for 16mm. work, I was delighted with the opportunities that it offered. Here was an opportunity to study composition in color. I saw how the study of paintings and other art integrated with composition on the screen and I found a new field for investigation and experiment—a field that theatrical movies had not covered."

Filmers who have read Movie Makers for a number of years know how these experiments eventuated, for Mr. Hansen won a place in the 1932 Ten Best with his Kodacolor pictures, *Studies in Blue and Chartres Cathedral* and, again in 1934, he received the same distinction with a Kodacolor reel, *Venice*. Earlier in 1931, he had taken a place in the Ten Best with a black and white reel, *Tombs of the Nobles*.

With both *Chartres Cathedral* and *Tombs of the Nobles*, Mr. Hansen showed his amazing ability to overcome obstacles and to get valuable pictures of things that seem impossible to film. The reel of Chartres is a study in Kodacolor of the stained glass windows from the interior, showing the rich mosaics of colored glass as the sun illuminates them. It is, in the writer's opinion, the most beautiful reproduction of these windows ever made. *Tombs of the Nobles* was filmed in tombs in Egypt where no artificial lighting was available. This was overcome by an ingenious arrangement of reflectors that trapped the sunlight and directed it into the narrow interiors.

Mr. Hansen is generous with his time and his enthusiasm and he has presented his pictures and given lectures for numerous movie clubs, scientific societies and college and social groups. Last year in Denmark, his first Kodachrome reel was screened along with the regular movie program for a week in a theatre seating 1200, and for another showing the daily press of Copenhagen invited 300 state officials, industrial leaders and hotel men to view his color pictures of the North Cape cruise.

Mr. Hansen, who uses his films constantly, is wisely a perfectionist in the matter of their projection and care, with the result that his library of eleven years' standing is in perfect condition and each reel is ready to take its place on a program at any time.

Although he has chiefly dedicated himself to recording and creating the beautiful in nature and art, Mr. Hansen has not neglected the practical side of filming by any means and, although it has not been generally known, he has cooperated with eminent surgeons and scientists in recording operations and laboratory work in color film. He has given lectures on cine color technique to the United States Bureau of Standards and numerous scientific organizations.

A frequent Movie Makers author and movie club lecturer, he is always ready to share his enthusiasm and the information that he has garnered. As a movie maker of great distinction, a generous devotee of the art of filming, a successful man of business and science endowed with charming personality, Mr. Hansen is a valuable and important addition to the directorate of the League.

A. L. G.

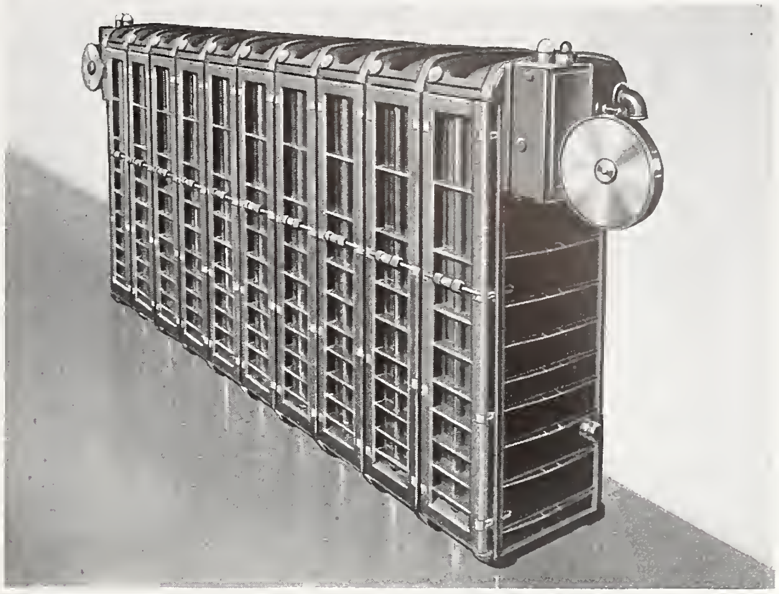
The ACL leader

[Continued from page 196]

were made, we had completed all preparations for combining the parts of the leader on the trick optical printer.

The closeup of the lens was wiped in from a black screen with a double rotating wipe in, centered exactly in the lens. (A double rotating wipe is one that rotates both clockwise and counter clockwise at the same time.) The lens wipes in during forty five frames, and this point is where the "ACL" starts to "zoom" up from a small dot, until it fills the lens in forty one frames. Here a circle "close in" wipe brings in the scene of the ship, in the black background surrounding the lens, and continues toward the center until the scene is fully in and the lens and "ACL" are both completely wiped out. This is done in forty six frames.

As soon as the ship is completely wiped in, this scene starts moving forward ("zooming") for twenty four frames; then, while still "zooming" slowly forward, it dissolves during sixteen frames into the scene of the football game. However, this scene of the football game is slightly smaller in size than the camera frame when it starts, and it is slowly "zoomed" forward as it dissolves in. After the dissolve is in fully, it continues moving forward for twenty four frames. Then, while still "zooming," the football game dissolves



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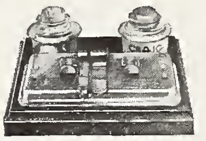

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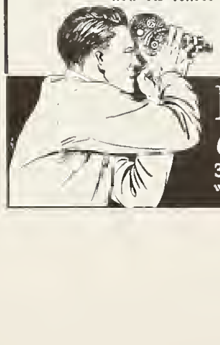

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	f4.5		f5.6		f8		f11		f16		f22	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	187′	INF.	172′	INF.	138′	INF	111′	INF.	83′	INF.	47′	INF.
200	128′	458′	120′	595′	103′	INF	87′	INF.	69′	INF.	55′	INF.
100	78′	140′	75′	149′	68′	190′	60′	288′	51′	INF	44′	INF.
50	44′	58′	43′	60′	40′	65′	38′	74′	34′	95′	30′	142′
25	23′	27′	23′	27′	22′	28′	21′	30′	20′	33′	19′	37′
15	14′-5″	15′-8″	14′-4″	15′-10″	14′-1″	16′-1″	13′-8″	16′-8″	13′-1″	17′-6″	12′-7″	18′-7″
12	11′-7″	12′-5″	11′-6″	12′-6″	11′-4″	12′-8″	11′-2″	13′-0″	10′-9″	13′-7″	10′-5″	14′-3″
10	9′-9″	10′-4″	9′-8″	10′-4″	9′-7″	10′-6″	9′-5″	10′-8″	9′-1″	11′-0″	8′-10″	11′-6″
8	7′-10″	8′-2″	7′-10″	8′-3″	7′-8″	8′-4″	7′-7″	8′-5″	7′-5″	8′-8″	7′-3″	8′-11″

Here is a useful table for a cine note book or card file

into a closeup of the baby, which also starts smaller than the frame. In a like manner, "zoom dissolving in" during sixteen frames, this scene continues "zooming" for twenty four frames and "zoom dissolves" out in sixteen frames. The action continues from the man and the microscope to the electric magnetic crane and into the scenic shot. However, as soon as the scenic shot has been dissolved in and "zoomed" the additional twenty four frames, the "zooming" is stopped and a circle "close in" wipe, in forty six frames, wipes the scenic shot out and brings in the background scene of the moving film strips. This background of moving film strips runs for 136 frames and then fades out in thirty two frames.

The camera now is reversed to frame 117, which is the point where the first scene of the ship was completely wiped in from the closeup of the lens. At this frame, number 117, the first subtitle fades in for sixteen frames, then runs for 215 frames to frame 348, where it dissolves in forty eight frames into the second subtitle, which runs 127 frames in the clear and fades out in thirty two frames. It is really at this point, where the film is reversed for the double exposure on the subtitle, that the "ACL" is double exposed into the lens and wiped out, as explained in a previous paragraph.

The clinic

[Continued from page 201]

tral," indicates that it has no special effect on color rays. It is claimed by some that such a filter will reduce contrast and produce other startling effects, but this is not scientifically possible. Movie makers will find that certain lenses do not have stops below *f*/11 which, under some conditions, would cause overexposure; in such cases, the use of a neutral density filter is indicated. Another situation where this filter comes in handy is when it is desirable to use a large aperture, yet where it is necessary to cut down the light to prevent overexposure. Neutral density filters come in various strengths and can be ordered in almost any type.

Meter correction ■ The directions supplied in last month's *Clinic* for use with the new Photoscop meter with Kodachrome were incorrect, we are sorry to say. The following table has been checked carefully and it will be found to be satisfactory for color shooting. Set meter at 14 degrees Scheiner for *all* Kodachrome filming.

Kodachrome outdoors, use camera speed of 16 frames a second in setting meter.

Regular Kodachrome with artificial light and without filter, use 24 frames a second in setting meter.

Regular Kodachrome with artificial light with filter, use 48 frames a second in setting meter.

Filming fishers

[Continued from page 197]

ing the screening of a high mid field kick in which the movie maker, attempting to follow the ball, actually captured only a good cross section of cloud effects. In fish filming, as in football camera work, it is essential that the object of interest be centered properly in the finder at all times. If you are following through a sequence of a surface cracking rainbow or a "wallopy" northern pike, cut to a closeup of the excited angler himself and include shots of the other members of the party, then cut back to the struggling fish to maintain tenseness of action.

If you are out to get fish action, capture these most interesting shots as soon as the fish makes the strike. Don't land the specimen first and then, after he is securely hooked, plop him back into the lake and retrieve him as lifeless as a chunk of kelp. Audiences are quick to detect such shots after the kick has

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gone out of a fish. When shooting into water shaded by trees or shoreline vegetation, open up an extra stop, or your scenes are likely to be underexposed. Especially is this true when color film is used.

In fishing movies, closeups count. A close shot showing the angler removing the hook from a mighty pike gives you an opportunity to portray the size of the huge head, its gaping jaws and needle like molars. Secure closeups of human hands operating the reel and taking in line, and you will want close shots of human faces and of fish being slipped into the creel or live net. Stroke the sides of a colorfully marked mountain trout with water, and you will be amazed what color film, properly exposed, will do for this closeup.

While "fake" stunts should not be introduced in a serious fishing film, some humorous touches can be created if the film is a comic. If you have an old discarded casting rod, heat a portion of one of the joints and allow it to cool. thus removing the temper and weakening the rod. Take the rod along on your fishing trip and, if you strike a spot where the fish are hitting, ask your partner to substitute your old rod for his present one. Then set your camera for proper focus and exposure and be prepared for some cine surprises. When a fish strikes and starts doubling things up, the rod will bend over but it will not resume its upright position. If your partner is not aware of the prank, you and your prospective movie audiences will have a hilarious time.

Vary your camera angles and frame some shots under droopy branches if you are stream fishing. When the sky is dotted with fluffy clouds, slip on a heavy yellow filter and silhouette your fishing pal against this pretty background.

In fly fishing, one of the most difficult shots is capturing the trout's first leap for the lure. After you have wasted considerable footage, you will probably drop in at your local hatchery, toss a bit of bread on the outdoor pool and shoot one of the "lunkers" as he breaks water. Take a number of these closeups from different angles and, by matching water shades, you will be able to fit an appropriate "rise" into your fishing sequence. Such a "rise" should not utilize more than a foot of film, and close editing will be necessary so that the observer will not be aware of the trick.

If you light into some big walleyes or northerns, build a rock lined live box near shore and free a couple of your best specimens in the pool for movie closeups. If your movements do not frighten the fish, you will be able to grasp some nice shots of whoppers with bulgy eyes swimming leisurely near the surface. Fit these into your regular fishing sequence and watch your audience!

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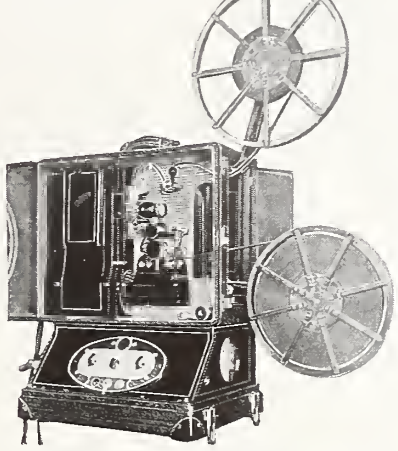

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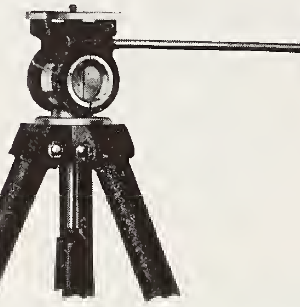

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A new Kodachrome

[Continued from page 204]

much more sensitive than the human eye in registering slight differences in light and shade or in shades of color. A contrasty lighting commonly used for black and white pictures is not suitable for color photography. A contrasty lighting accentuates the natural tone and color contrast of the subject beyond the film's ability to reproduce faithfully the extreme light and dark tone values. So, like the daylight Kodachrome film, the best results will be obtained when the Photoflood lamps are arranged to give a *very flat* or soft lighting. The automatic printing in processing used for black and white films is not possible for either type of Kodachrome film, so that pictures overexposed will be very light and washed out in appearance on the screen, while underexposures will be much too dark.

The following exposure guide, if carefully followed, will give very satisfactory results:

Exposure Guide for
Kodachrome Artificial Light Film
Type "A" with Photoflood bulbs in
Eastman Kodaflectors
Normal Camera Speed
(Measurements in feet represent distance of lights from subject.)

f/1.9
2 lamps at 5½ feet
3 lamps at 7½ feet
4 lamps at 8½ feet

f/2.8
2 lamps at 4 feet
3 lamps at 5 feet
4 lamps at 5½ feet

f/3.5-*f*/4
2 lamps at 2½ feet
3 lamps at 3½ feet
4 lamps at 4 feet

(4 lamps at 4 feet will illuminate satisfactorily about 20 square feet at *f*/3.5 or, at 8½ feet, about 40 square feet at *f*/1.9.)

If the camera is operated at eight frames a second (or half normal speed), the following table can be used:

f/1.9
2 lamps at 8½ feet
3 lamps at 10½ feet
4 lamps at 12½ feet

f/2.8
2 lamps at 5½ feet
3 lamps at 7½ feet
4 lamps at 8½ feet

f/3.5-*f*/4
2 lamps at 4 feet
3 lamps at 5 feet
4 lamps at 5½ feet

It must be kept in mind that the number of lamps recommended above is for the illumination of limited areas. Likewise, the guide is for the use of Eastman Kodaflectors with Photoflood lamps. It is important to measure the distances of lamps from the subject.

Dented and dusty reflectors, badly blackened lamps and low line voltage all contribute toward cutting down exposure. If one is aware that any of these factors is present, some compensation should be made by allowing slightly more exposure than the chart indicates (one half to one stop larger).

Usually, when we light a scene, our first impulse is to throw all the light from our lamps on the face or faces of our subjects. This is wrong technique. The bright spot of light from the reflectors should be directed into the shadows or darker tones: the outer band of diffused light is ample in strength to illuminate the lighter tones, such as flesh tints. This also helps to reduce subject contrast and to give a flat, more even lighting. If the bright areas of light are directed on the flesh tones, and the shadows are left to shift for themselves, subject contrast is increased beyond the limits of reproduction of the film.

If an extra pair of reflectors and Photofloods is available and is used to illuminate the background immediately back of the subjects, the results will be improved and subject contrast will be lowered. The background and other details in a picture should receive as much consideration in lighting as the subject itself, if one is to produce the most pleasing results.

It is possible, with the new Kodachrome, to obtain satisfactory color portraits by using two ordinary 100 watt, 110 volt tungsten lamps. Such lamps can be placed in flexible gooseneck, desk lamp reflectors or in Kodaflectors at two and a half feet from the subject (one on each side) and exposures may be made at *f*/1.9 and regular camera speed. These two lamps will illuminate only an area of between three and four square feet and they can be used for only extremely closeup views or titles. They are particularly useful in filming small babies, who usually blink or close their eyes entirely when the stronger Photoflood lamp is employed.

In medical photography, it has been found possible to make pictures of surgical operations by using the regular operating room lamps with a diaphragm of *f*/1.9. If an auxiliary 500 watt, 110 volt spotlight is employed, exposures can be made at *f*/3.5. This makes it possible to utilize the longer focal length lenses—two, three and four inch telephotos.

Inasmuch as the regular operating room illumination varies considerably in different hospitals, the above information may not be universally applicable. In order to determine the correct exposure in any hospital, an exposure test should be made under operating conditions. When filming laboratory specimens or clinical subjects, the exposure

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table given opposite can be followed reliably. Since we are usually more critical of color rendition in medical photography than in personal pictures, it is important that such pictures be as correctly exposed as possible. The delicate flesh tints go pale with overexposure and dark with loss of shadow detail when underexposed. Any blue daylight will cause the tones to appear still further distorted in color.

To summarize briefly: The new artificial light type "A" Kodachrome film is balanced for Photoflood lamps, but it will also render very excellent results with new, regular tungsten filament lamps. For white flame carbon arcs, the regular daylight Kodachrome film should be used. Since the new film is extremely blue sensitive, care must be exercised to exclude all daylight from the room when artificial light pictures are made. The exposure guide in this article is for use with Photoflood lamps when used in Kodaflectors. The film is four times the speed of, or two diaphragm openings faster than, regular daylight Kodachrome film when used with a filter and artificial light.

Amateur clubs

[Continued from page 202]

the members with the results obtained on 16mm. in similar media. An unofficial filming activity of the club, carried on by a number of the members, has been the production of a thoroughgoing film on the Boston Snow Train.

Honor to Maxim ■ Founder and first president of the Hartford Cinema Club, as he was of the Amateur Cinema League, the late Hiram Percy Maxim, ACL, has been honored by the Hartford club group in a resolution proposed by Maynard D. Hazen and adopted by the club, as follows:

"Resolution adopted at a regular meeting of the Hartford Cinema Club, held Tuesday, March 24, 1936.

"At this first meeting of the Hartford Cinema Club since February 17, it is only fitting that we should note with the deepest respect and regret the death on that day of the Founder of our Club, and President for the last nine years—Hiram Percy Maxim.

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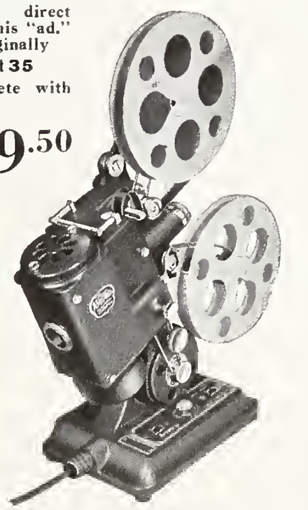

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Write for Bass Bargaingram No. 219 and large catalog of 16mm. silent or sound-on-film rental catalog.

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AROUND THE WORLD WITH MOVIE MAKERS

An international list of the dealers who carry this magazine—VISIT THEM!

UNITED STATES

ARIZONA

PHOENIX: Sam's Cigar Store, 127 N. 1st Ave.
TUCSON: T. Ed. Litt, Cor. Congress & Stone.

ARKANSAS

FORT SMITH: McCann's, 714 Garrison Ave.
LITTLE ROCK: Jungkind Photo Supply Co., 114 W. Fourth St.

CALIFORNIA

AZUSA: Ward's Photo Shop, 735 Azusa Ave.
BERKELEY: Berkeley Commercial Photo Co., 2515 Bancroft Way.
BEVERLY HILLS: Beverly Hills Home Movies, 417 N. Beverly Drive.
W. L. Martindale, 9477 Santa Monica Blvd.
EL MONTE: Anderson Photo Service, 232 W. Valley Blvd.
FILLMORE: Ellsworth Electric, 341 Central Ave.
FRESNO: Laval Co., Inc., 1319 L St.
Potter Drug Co., 1102 Fulton St.
Stillman Drug Co., 2001 Van Ness Blvd.
GLENDALE: Glenar Studio, 209 E. Broadway.
Glendale Camera & Gift Shop, 327½ N. Brand Blvd.
A. L. Kirkhuff Camera & Movie Supply Co., 146 S. Brand Blvd.
HOLLYWOOD: Bell & Howell Co., 716 N. La Brea Ave.
Camera Mart, 1652 N. Cahuenga Blvd.
Hollywood Camera Exchange, Ltd., 1600 N. Cahuenga Blvd.
Walter Jakway Studios, 7561 Sunset Blvd.
Seymour's News Service, 1101-1103 N. Fairfax Ave.
LONG BEACH: May Studio, 123 E. Fourth St.
Winstead Bros., Inc., 244 Pine Ave.
LOS ANGELES: George F. Adair, 306 W. Washington Blvd.
C. & W. News Stand, 711 N. Western Ave.
Choyei-Do, 122 S. San Pedro St.
CRAIG MOVIE SUPPLY CO., 1053 South Olive St.
Eastman Kodak Stores, Inc., 643 S. Hill St.
John R. Gordon, 1129 S. Mariposa Ave.
T. Iwata Art Store, 256 E. First St.
Los Angeles Camera Exchange, 1037 S. Olive St.
Los Angeles Film Library, 832 Wilshire Blvd.
Marshutz Optical Co., 518 W. 6th St.
W. L. Martindale, 610 S. Western Ave.
Peterson's Camera Exchange, 356 S. Broadway.
Schwabacher-Frey Co., 736 S. Broadway.
Victor Animatograph Corp., 2402 W. Seventh St.
Wilshire Personal Movie Co., 3150 Wilshire Blvd.
NAPA: Levinsons Pharmacy, 948 Main St.
OAKLAND: Eastman Kodak Stores, Inc., 1918 Broadway.
Oakland Camera Exchange, 376 14th St.
Sherman, Clay & Co., H. C. Capwell Bldg.
Smith Bros., Inc., 1721 Broadway.
PALO ALTO: Keeble's, 323 University Ave.
PASADENA: Flag Studio, 59 E. Colorado St.
Harold A. Parker Studio, 479 E. Colorado St.
F. W. Reed Co., 176 E. Colorado St.
A. C. Vroman, Inc., 329 E. Colorado St.
RIVERSIDE: F. W. Twogood, 3700 Main St.
SACRAMENTO: Kimball-Upson Co., 1030 K St.
Magneto Shop, 1020 14th St.
Frank McDougal, 1017 10th St.
SALINAS: Anderson's Electric Shop, 342 Main St.
SAN BERNARDINO: Arrowhead Photo Service, 610 Third St.
Oxie's, Inc., 404 E. St.
SAN DIEGO: Bunnell Photo Shop, 1033 Sixth Ave.
Eastman Kodak Stores, Inc., 419 Broadway.
Harold E. Lutes, 958 Fifth St.
SAN FRANCISCO: Camera Shop, 145 Kearny St.
Duhem Motion Picture Mfg. Co., 135 Hayes St. (Civic Center).
Eastman Kodak Stores, Inc., 216 Post St.
Hirsch & Kaye, 239 Grant Ave.
Miniature Camera Shop, 1600 Post St.
San Francisco Camera Exchange, 88 Third St.
Schwabacher-Frey Co., 735 Market St.
Sherman, Clay & Co., Kearny and Sutter Sts.
Trainer-Parsons Optical Co., 228 Post St.
SAN JOSE: Sherman, Clay & Co., 273 S. First St.
Wehh's Photo Supply Store, 66 S. First St.
Wolff's, 94 S. First St.
SANTA ANA: Stein's Stationery Store, 307 W. Fourth St.
SANTA BARBARA: J. W. Collinge, 19 E. Canon Perdido St.
SANTA MONICA: W. W. Martindale, 3rd & Bway.
SOUTH GATE: Hollywoodland Studios, 9320 California Ave.
STOCKTON: Holden Drug Co., 345 E. Weber Ave.
Logan Studios, 20 N. San Joaquin St.
Nathan Reiman, 528 E. Main St.

COLORADO

DENVER: Akin & Bagshaw, Inc., 1425 Williams St.
Eastman Kodak Stores, Inc., 626-16 St.
Haanstad's Camera Shop, 404 Sixteenth St.
Home Movie Sales Agency, 259 S. Corona St.
The May Co., 16th & Champa Sts.
GUNNISON: Little Art Studio, 247 N. Main St.
MONTROSE: Hess Drug Store.
PUEBLO: Camera Craft Shop, 503 Court St.

CONNECTICUT

BRIDGEPORT: Fritz & Hawley, Inc., 1030 Main St.
Harvey & Lewis Co., 1148 Main St.
BRISTOL: Lee E. Paulmann, 252 Main St.
HARTFORD: Harvey & Lewis Co., 852 Main St.
Watkins Bros., Inc., 241 Asylum St.
MERIDEN: Broderick & Curtin, 42 E. Main St.
MIDDLETOWN: F. B. Fountain Co., 483 Main St.
NEW HAVEN: Fritz & Hawley, Inc., 816 Chapel St.
Harvey & Lewis Co., 849 Chapel St.
Mongillo's, 193 Church St.
Yale Cooperative Corp., 300 York St.
NORWICH: Cranston Co., 25-29 Broadway.
TORRINGTON: Flieg & Newbury, 45 Water St.
WATERBURY: Curtis Art Co., 65 W. Main St.
Wilhelm, Inc., 139 W. Main St.

DELAWARE

WILMINGTON: Butler's, Inc., 415 Market St.
Frost Store, 915 Shipley St.
Wilmington Elec. Spec. Co., Inc., 405 Delaware Ave.

DISTRICT OF COLUMBIA

WASHINGTON: Columbia Photo Supply Co., Inc., 1424 New York Ave., N. W.
Eastman Kodak Stores, Inc., 607-14th St., N. W.
Fuller & d'Albert, Inc., 815-10th St., N. W.
Izzy's Exchange, Inc., 905 D Street, N. W.
Robbin's, National Press Bldg., 529 14th St., N. W., opposite Willard Hotel.

FLORIDA

JACKSONVILLE: Eastman Kodak Stores, Inc., 129 W. Adams St.
MIAMI: Miami Photo Supply Co., 269 E. Flagler St.
PANAMA CITY: Friendly News Stand, Rear of First National Bank.
ST. PETERSBURG: Robison's Camera Shop, 410 Central Ave.
TAMPA: Burgert Bros., Inc., 608 Madison St.
Tampa Art Supply Co., 516 Tampa St.

GEORGIA

ATLANTA: Eastman Kodak Stores, Inc., 183 Peachtree St.
Wing's Fast Foto Service, 7 Auburn Ave.

IDAHO

BOISE: Ballou-Latimer Co., Idaho at 9th St.
BURLEY: Walgreen Drug Co., 402 N. Overland.
POCATELLO: Cook Drug Co., 333 W. Center St.
WALLACE: Best & Bradshaw, 517 Bank St.

ILLINOIS

CHICAGO: *BASS CAMERA CO., INC.*, 179 W. Madison St.
CENTRAL CAMERA CO., 230 S. Wabash Ave.
Almer Coe & Co., 78 E. Jackson Blvd.
18 So. La Salle St.
105 N. Wabash Ave.
Eastman Kodak Stores Co., 133 N. Wabash Ave.
Fair, The, Dept. 93, State, Adams & Dearborn Sts.
Marshall Field & Co., Photographic Dept., Sec. 59, State and Washington.
Movie Supply Co., 844 S. Wabash Ave.
Norman-Willets Co., 318 W. Washington St.
Post Office News Co., 71 W. Monroe St.
Seamans, Photo Finisher, 1953 E. 71st St.
DE KALB: Lundberg's News Stand, 324 E. Lincoln Highway.
EVANSTON: Almer Coe & Co., 1645 Orrington Ave.
Hattstrom & Sanders, Inc., 702 Church St.
GALESBURG: Illinois Camera Shop, 84 S. Prairie St.
JOLIET: Mercier Photographic Service, 915 Prairie Ave.
MOLINE: Carlson Bros., 1405-5th Ave.
OAK PARK: Hattstrom & Sanders, Inc., 1001 Lake St.
ROCK ISLAND: Rocklan Film Exchange, 38-40 State Bank Bldg.
ROCKFORD: Camera Craft Shoppe, 112 N. Main St.
SPRINGFIELD: Camera Shop, 320 S. 5th St.

INDIANA

EVANSVILLE: Smith & Butterfield Co., 310 Main St.
FORT WAYNE: Howard Co., Inc., 112 W. Wayne St.
SUNNY SCHICK, National Brokers, Washington at Ewing.
FRANKFORT: A. G. Chittick, 206 E. Walnut St.
INDIANAPOLIS: R. B. Annis Co., 1505-7 E. Michigan St.
L. S. Ayres & Co., Dept. 290, 1 W. Washington St.
Wm. H. Block Co., N. Illinois St.
W. Stuart Bussey, 17 E. St. Joseph St.
H. Lieber Co., 24 W. Washington St.
SOUTH BEND: Ault Camera Shop, 122 S. Main St.
309 S. Michigan St.

IOWA

DAVENPORT: Eastman Kodak Stores, Inc., 318 Brady St.
DES MOINES: Eastman Kodak Stores, Inc., 808 Locust St.
Westing Photo Service, 3816-6th Ave.
IOWA CITY: Rexall & Kodak Store, 124 E. College St.
SIOUX CITY: Eastman Kodak Stores, Inc., 608 Pierce St.

KANSAS

SALINA: Bangs Jewelry Co., 114 W. Iron Ave.
TOPEKA: Hall Stationery Co., 623 Kansas Ave.
WICHITA: Lawrence Photo Supply Co., 149 N. Lawrence Ave.
Stevensons News Stand, 125 N. Market St.

KENTUCKY

LEXINGTON: W. W. Still, 129 W. Short St.
LOUISVILLE: Bourne & Bond, Inc., 449 S. Fourth Ave.
W. D. Gatchel & Sons, 431 W. Walnut St.
Sheckler's, 212 W. Chestnut St.
Sutcliffe Co., 225-227 S. 4th St.

LOUISIANA

NEW ORLEANS: Eastman Kodak Stores, Inc., 213 Baronne St.
Harcol Motion Picture Industries, Inc., 610 Baronne St.

MAINE

BANGOR: Francis A. Frawley, 104 Main St.
EASTPORT: S. L. Wadsworth & Son, Central Wharf.
PORTLAND: Bicknell Photo Service, Inc., 15 Preble St.

MARYLAND

BALTIMORE: Eastman Kodak Stores, Inc., 309 N. Charles St.
Lewy Movie Service, 853 N. Eutaw St., at Biddle.
Stark-Films, 219 W. Centre St.
Zepp Photo Supply Co., 3044 Greenmount Ave.
HAGERSTOWN: R. M. Hays and Bros., Inc., 28-30 W. Washington St.

MASSACHUSETTS

BOSTON: Eastman Kodak Stores, Inc., 38 Bromfield St.
Hotel Statler.
Film Library of New England, 239 Columbus Ave.
Ralph Harris & Co., 30 Bromfield St.
Iver Johnson Sporting Goods Co., 155 Washington St.
Leeds 16mm. Cine Service, 100 Boylston St., Colonial Theatre Bldg.
Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
Pathescope Co., of the N. E., Inc., 438 Stuart St. cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
CAMBRIDGE: John H. Derby, Inc., Harvard Sq.
E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
Frank C. Hagyard, Main St.
LOWELL: Donaldson's, 75 Merrimack St.
LYNN: Hutchinson Hardware Co., 49-55 Munroe St.
PITTSFIELD: E. J. Curtis, Inc., 397 North St.
SALEM: Pitman Movie Service, 418 Lafayette St.
SPRINGFIELD: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
WESTFIELD: North Side Pharmacy, 34 N. Elm St.
WORCESTER: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

ANN ARBOR: Calkins-Fletcher Drug Co., 324 S. State St.
DETROIT: American Motion Picture Co., 2nd Floor, Convention Hall.
Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
FLINT: Gardner Photo Service, 1425 Detroit St.
GRAND RAPIDS: Camera Shop, Inc., 56 Monroe Ave.
Photo Service Shop, 44 Monroe Ave.
JACKSON: Royal Film Service, 125 Michigan Ave., W.
LANSING: Linn Camera Shop, 109 S. Washington Ave.
SAGINAW: Heavenrich's, 301 Genessee.
SAULT STE. MARIE: Kenneth R. Eddy, 119 Peck St.

MINNESOTA

DULUTH: Eastman Kodak Stores Co., 3 W. Superior St.
MINNEAPOLIS: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
ST. PAUL: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.

Continued on page 224)

dio, aviation and cinematography. In the latter, he was the patron saint of the amateurs. Through his organization of the Amateur Cinema League in 1926, and his leadership since that time, he has produced a medium of inestimable value as an information center and service bureau for thousands of eager movie makers in every country.

"We in the Hartford Cinema Club count it a rare privilege and honor to have had the active interest of a man of such renown in our awkward efforts in this field. The Club is deeply grateful for his guiding hand in our organization. We are fortunate, indeed, to have enjoyed the charm of his genial personality, his delightful sense of quiet humor and his kindly but helpful criticisms of our films—films which were often rather crude, especially in the early days. To him as a scientist and scholar we owe much, but how much more are we indebted to his character for inspiration toward the achievement of truth and beauty. The world is poorer in the loss of such a man, but richer for the fullness of his life."

News of the industry

[Continued from page 205]

panion adjuncts to the camera. Existing sound projectors will, of course, reproduce variable density or variable area tracks with equal facility. Further information may be had from M. W. Palmer, New York factory representative, in care of Victor Animatograph Corporation, 242 West 55th Street, New York City.

B. B. Snowden ■ The Agfa Ansco Corporation, Binghampton, N. Y., mourns the loss of one of its veteran executives, Bayard Breese Snowden, who died on April 3. Mr. Snowden was a graduate of Williams College and was professor of English at Williston Academy, Mass., prior to his acceptance of an executive position with Agfa in 1920. Here, his business ability and fine personality soon made him a prominent figure in the industry.

Guild dinner dance ■ An occasion of note for members and friends of the photographic industry was the Second Annual Dinner Dance, given by the Guild of Photographic Dealers of New York on the evening of April 4, 1936. The function was planned as a "Tribute to the Photographic Industry" and the spirit in which it was carried out gave excellent support to this ideal. Guests were welcomed to the grand ballroom of the Hotel New Yorker by the president, A. H. Niemeyer, S. A. Robbins, secretary treasurer, and by members of the board of directors, Joseph Dombroff, A. G. Katz, Thomas Roberts, jr., P. Y. Howe, Henry Herbert and J. B. Korn. Guests who were honored with invitations to occupy the dais were Herman C. Sievers, Dr. Ernest Schwarz, Adolph Stuber, J. H. McNabb, ACL, Colonel R. W. Winton, ACL, Walter Ranzini, Pirie MacDonald, B. D. Jennings, Frank B. Chambers and J. E. Brulatour, ACL.

Flood film ■ An event of active public interest is covered by a carefully planned 16mm. film of the Hartford and nearby New England sections, showing timely and arresting scenes of the recent record making floods. Filmed by Arthur A. Hebert, jr., ACL, and Edmund Zacher, II, ACL, and associates, this film, which may be had in 200 or 400 foot lengths, is a real historic document. It has been titled *37.5*, a figure which indicates the record height of the flood waters.

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Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bass Camera Co., Chicago, Ill., will be glad to send a catalog of 16mm. rental films, both silent and sound, on request.

■ Bell & Howell Co., Chicago, Ill., announces four new films by Arthur C. Pillsbury, the naturalist, and they are for rent or for sale. The subjects are: *Life in the South Seas, Life Under the South Seas, Plants Without Soil* and *Reproduction of Plants and Lower Animals*. Also available for rent are six Burton Holmes short subjects: *Cairo to the Pyramids; Belgium, the Beautiful; Holland and the Dutch; Paris; Ethiopia; Historic Rhineland*. A feature picture, *The Viking,* in six reels, is also offered by the Filmosound Rental Library.

■ Eastin 16mm. Pictures, Davenport, Iowa, has available a new catalog of 16mm. silent and sound on film subjects.

■ Garrison Film Dist., Inc., New York City, offers a list of foreign language films. Included among them is *Life of Pasteur,* with Sascha Guitry; the dialog is French but there are English titles.

■ Hartley-Leonard Productions, New York City, continues to offer for sale the 16mm. film, *The Real New York,* two reels covering this metropolitan city of today.

■ Arthur A. Hebert, Jr., Hartford, Conn., coproducer with Edmund Zacher, II, of *37.5,* offers for sale this film of the recent Hartford floods. It is available in either 200 ft. or 400 ft.

■ Alfred D. Hornstein, Chicago, Ill., has for sale *The Great Train Robbery,* a 16mm. reduction from the old photoplay made by Thos. A. Edison Studios.

■ Kodascope Libraries, Inc., New York City, has the feature length sound on film subject, *The Two Gun Man,* starring Ken Maynard and his horse, Tarzan, in a typical Western story. Two short subjects in sound also are available. *The Devil's Playground* is an adventure tale of George Vanderbilt's big game fishing. *Cuckoo Murder Case* is a Flip, the Frog cartoon.

■ Lewis Film Service, Wichita, Kans., offers a list of sound and silent 16mm. films, on request.

■ Nu-Art Filmco, New York City, will be glad to send a list of available films.

■ Ernest M. Reynolds, Cleveland, Ohio, offers for sale Gold Seal Superscenics; these come in 100 ft. lengths of 16mm.

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EDITING & TITLING SERVICE
Kodascope Libraries, Inc.
33 West 42nd Street, New York

(Continued from page 222)

H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.
Winona: Harry Peiewert Photo Supplies, 69 E. 4th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Butte: Al's Photo Shop, 42 N. Main St.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 419 S. 16th St.
J. G. Kretschmer & Co.. 1617 Harney St.
Tecumseh: Gamble Store Agency.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bavonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman's, 384 Springfield Ave.
Trenton: Dwver Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
Stewart's School Films, 143 Hunter Ave.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
Ollie V. Crennan, 498 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Columbus Photo Supply, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand. Times Bldg.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
HENRY HERBERT, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co., Inc., 10 W. 33rd St.
MADISON MART, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
Henry Westpfal & Co., 4 E. 32nd St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley. Lindsay & Curr Co.. Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., cor. 4th and Boston

OREGON

Lakeview: Getty's Photo Studio, 536 G. St.. So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers, 416 N. 5th St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
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Wallace & Cook. Inc., 205 N. Washington Ave.

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Westerly: Vars Bros., 8-10 High St.

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TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
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Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.
H. H. Page, 115 N. 6th St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's, 1102 First Ave.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
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Phillips: Jakoubek's Photo Shop.

WYOMING

Worland: Worland Drug Co.

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Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.

Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

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Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
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Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab. Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
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Kingston-on-Thames: Durbins, 24 Market Pl.
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J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
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Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
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81 Strand.
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Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
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Manchester: J. T. Chapman, Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales. 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Et. Hesperiankatu 12A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 253 Hornby Rd.
Empire Book Mart. 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger. V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlien, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

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Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

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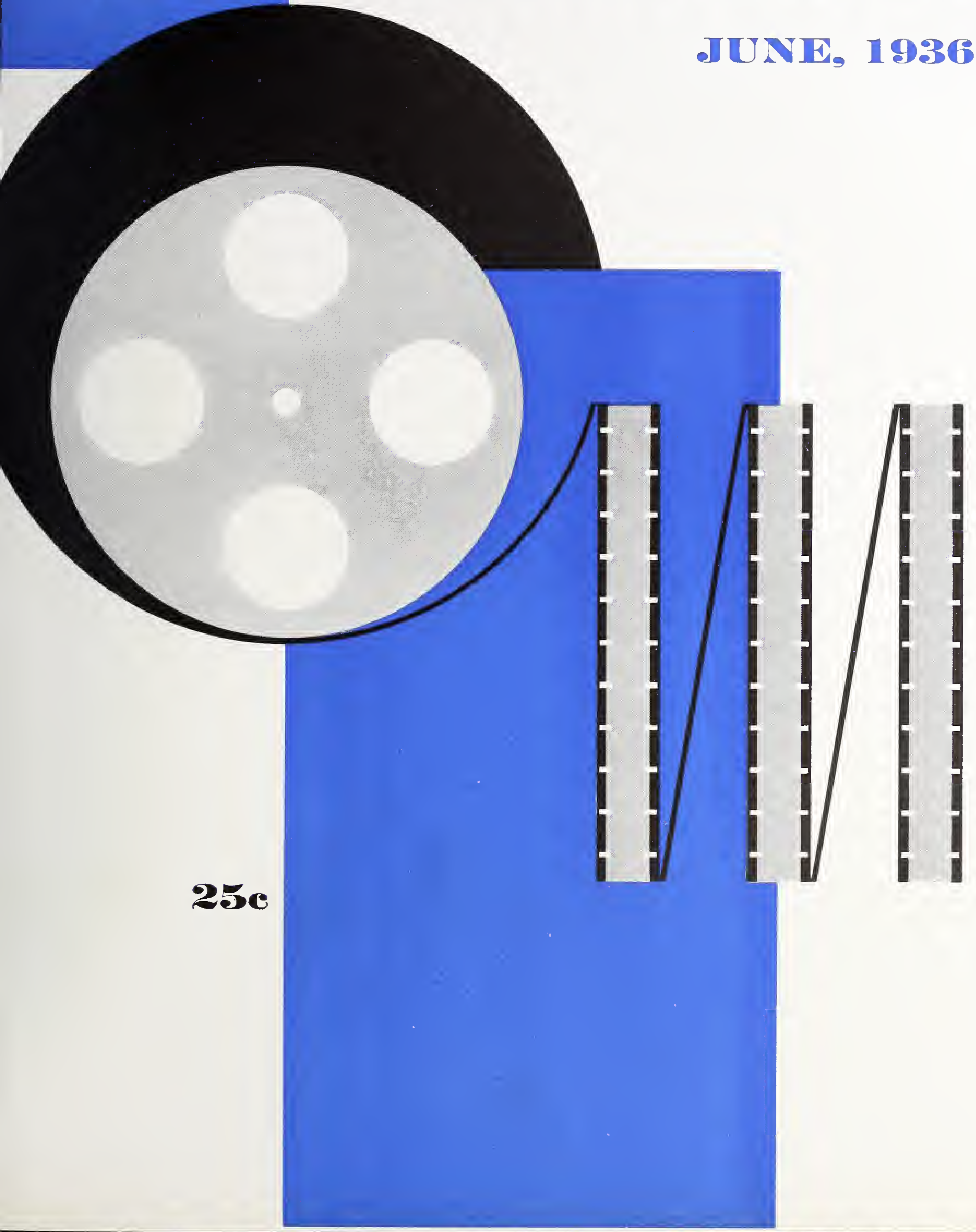
JUNE, 1936



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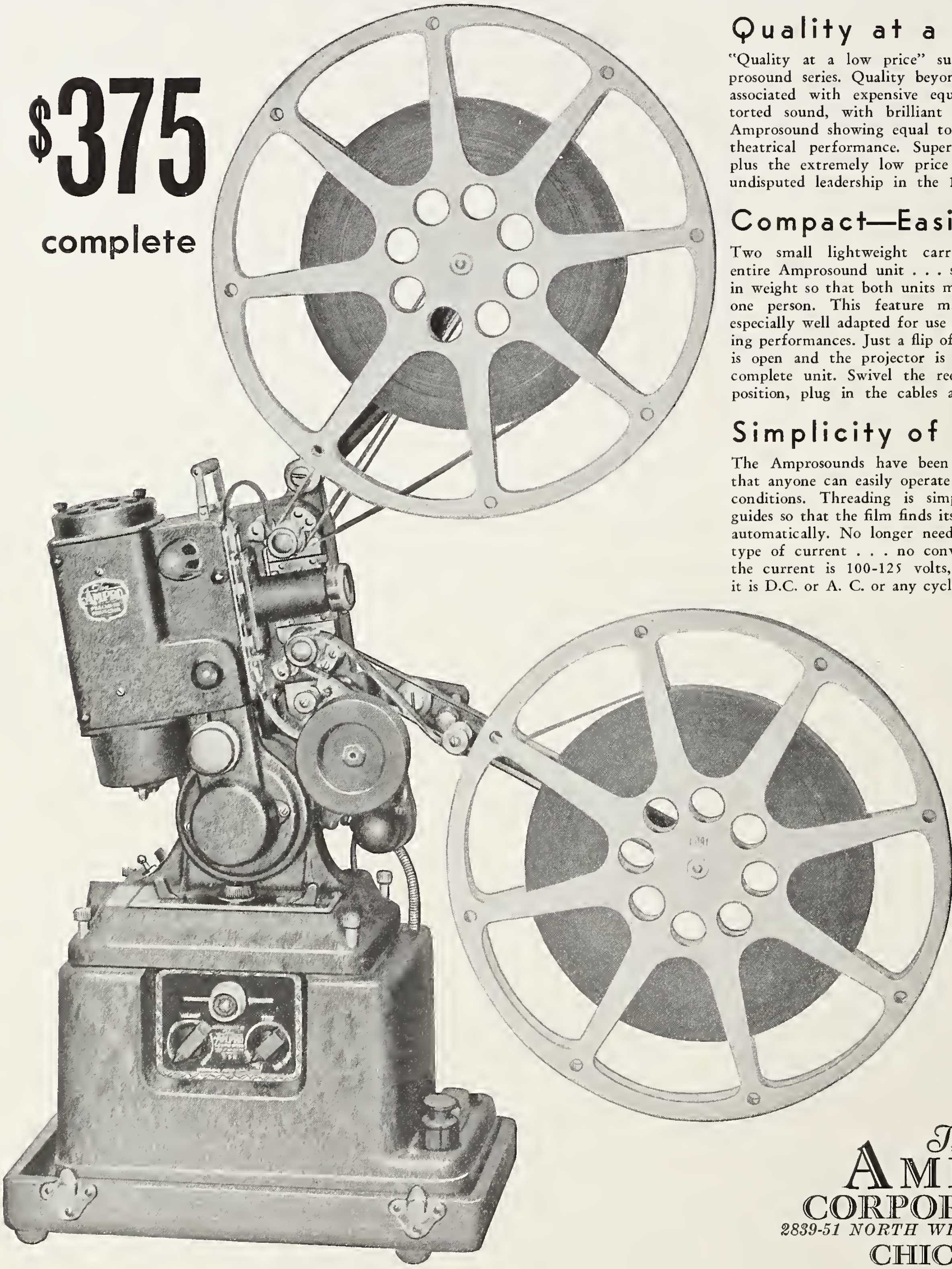

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The magazine of the Amateur Cinema League, Inc.

F. S. Lincoln

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420 LEXINGTON AVE., NEW YORK CITY, U. S. A.

No comparisons

EVERY once in a while, it is necessary to set forth, for the benefit of new members, a long standing policy of the Amateur Cinema League in its refusal to recommend one manufacturer's equipment over that of another, when both would serve an identical purpose.

This policy is not based upon any fear of reprisals from manufacturers, to be reflected in the advertising pages of Movie Makers, because the amateur movie industry is not made up of firms whose products have to be defended by reprisals. Their products will stand up under the utmost plain speaking and critical examination. The League's unwillingness to recommend this product over that, for a service to which both are well adapted, comes from its conviction that articles and services advertised in Movie Makers are sound values at their prices and that the responsibility of selection must rest squarely upon the buyer. In making this selection, his personal preferences, and not those of anybody else, ought to govern him.

The League is glad to consider special filming problems of its members and to tell them about equipment to meet those problems, but in doing this it is careful to remind inquirers that, in most instances, this equipment can be secured from several manufacturers. If only one manufacturer offers the special requisites for the solution of the particular problem, of course only his equipment will be suggested. To the bald question, "Is the X camera better than the Y?", however, no honest reply can be made, since the special uses intended would entirely qualify the answer. To such blanket requests, therefore, the League will not reply.

Very few industries—and certainly not the amateur movie industry—act today on the old policy of letting the buyer beware. Very few reputable publications—and certainly not Movie Makers—act on this policy in accepting advertising. Many of them—as is the case with Movie Makers—examine the product or service offered to make sure that they believe it to be an honest value for the price and, in addition, insist upon references from the prospective advertiser that testify to his standing in the business world. The result of this is that decent magazines have nothing but decent advertising.

Buyers are still suspicious, in some instances, probably because they are not aware of the fact that industries and publications differ in their ethics, just as men differ. They want some reinforcing reassurance over and above the fact that a product is accepted for advertising by a magazine that is careful in opening its advertising columns. They hope that some organization exists somewhere to give them the "confidential information" they would like to have to strengthen their determination to purchase. Their real need is to know what to trust, whether it be a magazine or a group of technical advisers. Publications can be, and the reputable ones are, just as honest as trustworthy commercial purchasing counselors.

The Amateur Cinema League will not let personal preference for one kind of camera over another be erected into a supposedly critical estimate of comparative excellence. Nor will it permit fondness for this lens or that filter, for this projector or that screen to become the basis for "inside information" on "what, now, is really the best on the market." If anything is advertised in Movie Makers, the League has done its level best to find out about that article and considers it worthy of presentation to the movie making world. After that investigation has been concluded, the League's consultants will describe it and indicate how best it may be used. But they will not compare it with others in the same range of serviceability.

Photograph above by F. S. Lincoln; photograph below by Orville L. Snider from R. I. Nesmith & Associates

Summer vacations now can be filmed in color by 8mm. movie makers

MOVIE
MAKERS

Kodachrome for Eights

HARRIS B. TUTTLE

Exposure counsel for users of new 8mm. color film

BY NOW, most owners of 8mm. cameras have heard the good news—8mm. Kodachrome is here, with all the beauty and realism that it brought to 16mm. film. No color movies for 8mm. users have been available up until now. Kodacolor, the first amateur color process, never was applicable to the Eight, but Kodachrome, with its entirely new principle of color photography, has been developed to a point where 8mm. movie makers now can enjoy all the fun of amateur movie making in color.

The details of making and showing Kodachrome with the Eight are fundamentally the same as those for black and white photography. The camera and projector are loaded in the same manner, and no color filter is required on the camera or projector lens. Kodachrome 8mm. pictures can be spliced into the same reel with black and white 8mm. films and projected to the same size on the screen.

As most 8mm. film users probably have learned by now, from their experience with black and white film, the most effective results are obtained in fairly close views; that is, pictures made from two to twenty five feet from the subject. While scenes containing objects from twenty five feet to infinity may be filmed satisfactorily, the minute distant objects, difficult to see clearly with the naked eye, are lost when reduced down to the 8mm. film. This is no reflection on 8mm. standards but is a physical limitation of photographic media.

Therefore, the first suggestion for the Eight movie maker is to film as many subjects as possible at distances of two to twenty five feet from the camera. If closeups, taken at from two to six feet, can be made in addition to the longer views of each subject, the pictures will be greatly enhanced.

The next consideration is exposure. Kodachrome Eight is about one half stop slower than black and white Eight. The exposure scale on the front of the camera can be relied upon to render satisfactory results if you use a stop one half larger than is indicated. Pictures that have been underexposed in the camera will appear too dark on projection and pictures that have been overexposed will appear too light.

In black and white photography, we depend upon the differences in light and shade for contrast. With subjects that are flatly lighted and of low contrast, we try to obtain a side or a back lighting to increase contrast. Since, in color movies, the differences in colors provide contrast, we need no longer rely upon side and back lighting for this purpose. While, in many cases, excellent pictures can be made in color with a strong side or back lighting, it is not generally advised for those inexperienced in handling lighting problems.

A fairly good rule to follow is to take pictures from such positions that the sun will not be more than forty five degrees to the right or left of the camera and subject. In other words, place yourself so that the sun is nearly back of the camera or over your left or right shoulder.

Often, of course, it is impossible to make pictures within these limits. The main point to remember is that more exposure, about one half stop larger extra, will have to be used for side or ninety degree lighting (complete side lighting) and one stop larger for ninety to one hundred and eighty degree lighting (back lighting).

Light intensity can be estimated by a guess based upon past experience, or lighting conditions in general can be classified into groups based upon tests and experience, and these group conditions may be followed as a guide in a general way. An exposure guide of this type comes with each roll of film and will provide excellent assistance if carefully followed.

For those who have not made 8mm. movies and have had no past experience on which to base their estimation of exposure, the following group classification of the sun and sky conditions may be of some help.

The classification would be for average subjects, six to twenty five feet from the camera, flatly lighted and of average contrast. From May to October, inclusive, and from 9:00 a.m. until 4:00 p.m. standard time.

Group 1. Bright sun, casting strong shadows. No clouds. Clear blue sky. Lens stop: half way between *f*/5.6 and *f*/8.

Group 2. Hazy sun, casting weak shadows. Some clouds or aerial haze over the sun. Hazy sky. Lens stop: half way between *f*/3.5 and *f*/5.6.

Group 3. No sun visible and no distinct shadows cast. Cloudy but generally bright. Lens stop: half way between *f*/2.8 and *f*/3.5.

Group 4. No sun and no shadows cast. Cloudy dull; might rain. Lens stop: *f*/1.9.

The condition of the sun and sky can be classified fairly accurately into these four general groups. Experience has shown that the smallest diaphragm opening used on an average subject with Kodachrome Eight under the sky condition in group 1, during July or August, is to stop half way between *f*/5.6 and *f*/8. With this as a basis, it is easy to classify the weaker intensities of light and to associate them with large diaphragm openings on the camera lens.

The following finer adjustments for exposures given in above table may be made if desired.

1. When making closeups two to six feet from the camera, filming dark colored objects, shooting during the winter months or when objects are side lighted, use one half stop larger for each condition.
2. When making pictures in the shade of buildings or trees or filming with the sun back of the subject, use one to two stops larger.

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F. S. Lincoln

New Ten Best

THIS December, for the seventh consecutive time, the staff of Movie Makers will announce its selection of the Ten Best Non Theatrical Films of the year. The oldest annual listing in the realm of personal movie making, this unique honor roll has grown in significance and importance through the years. As the scope of personal filming has widened and the skill of its practitioners has increased with each twelvemonth, the high quality of those films which win their way to the top has been increasingly apparent. Finer craftsmanship, more sensitive and successful imaginative treatment have been characteristic not only of the Ten Best but of all the hundreds of films which are examined each year.

With this increasing excellence of technique, there has come, inevitably, a growing diversity of topic. Personal filmers, with the whole world as their subject matter, rightfully have not hesitated to turn their talents in whatever direction most intrigued them. Family and travel pictures have stood side by side in competition with record films and the photo drama. Sales and scientific films have opposed each other and all comers for the treasured laurels of recognition. Movie makers who have spent a month's salary on a production shot in their spare time have matched their accomplishments against those of the man who was paid hundreds of dollars for filming as a full time job. The competition has been keen, catholic and instinct with vigorous health.

Two classes will feature the 1936 Movie Makers list

This year, in recognition of this difference in filming opportunities, the selections will be made in two separate but allied classes. In 1936, Movie Makers will choose, as it has previously, the Ten Best Non Theatrical Films. Seven of these will be from among personally made pictures which fall in the *General* class. Three of them will be from among pictures which fall in the *Special* class. As before, this selection of the best ten will carry with it the selection of a number of outstanding films for Honorable Mention. Among this number, which will be an undetermined total, films will also be classed as General or Special, although no predetermined number of places for each class will be reserved.

Under this new plan of selecting the Ten Best, the productions which fall into the Special class will be *all those for which the maker has received compensation from a client at any time previous to the official closing of the year's competition* (which is stated later in this discussion). Receiving compensation from a client for a film is understood to include acceptance of sale or rental monies for that film, irrespective of the original intention of the producer regarding it, at the time of the film's making. It is not understood to include the receipt of monies by the producer for any personal uses of the film by him in connection with his own business or profession. All pictures which do not, by the terms of these definitions, fall into the Special class will be rated automatically in the General class.

In the General class, films made on any width of stock will be accepted for consideration, since it is the belief of Movie Makers that persons producing non theatrical films on standard width (35mm.) will, in the main, not have elaborate studio facilities at their disposal unless such films are made for clients and for compensation. This condition acts to equalize the facilities in the General class. In the Special class, only films originally produced on substandard stock will be accepted for consideration, since it is believed that, among producers operating for clients or for compensation, those working with standard width equipment may possess facilities so elaborate as to weight the competition in their favor. If such standard width producers, however, elect to make their pictures originally on substandard stock, they will, in the main, not have facilities much in excess of those who do all their work on substandard film. This acts to equalize conditions in the Special class.

Under this new plan of selecting the Ten Best, just as in the years past, all films submitted by members of the League for ordinary review by the League's consultants still will be considered automatically for rating among the chosen ten. All films specifically submitted for competition, by any movie maker whether a League member or not, also will be considered in making up the selections. However, in order that the staff of Movie Makers may know whether a picture is to be considered as in the General class or as in the Special class, it will be necessary that each film intended by its maker for consideration and each film tentatively selected by the staff for consideration must be certified as to its standing in this regard. This certification should be made in the following manner:

Place ....
Date ....
I, ... (name) ...., certify that I
did
did not receive compensation from a client for a motion picture made by me entitled, ... (name of film) ....
.... (Signature) ....

Because of the necessity for this identification, it is suggested that all persons who, during the year, specifically wish their films to be considered in the selection of the Ten Best should execute a certificate and [Continued on page 257]

Cameras and canoes

EDWIN SCHWARZ, ACL

SOME think of the canoe as the American version of the Venetian gondola, for which moonlight and soft music weave an alluring background. Perhaps this is the reason why many of us never think of the canoe as good motion picture material. But, to the contrary, it offers plenty of action, exciting sport and thrilling adventure.

There are many types of canoes, each of which is adapted to a different kind of sport. For instance, the familiar canvas covered boat, usually found at vacation camps, is good for general all around use, but it is particularly adapted to transportation of hunting and camping equipment; the cedar wood canoe is used largely for racing; the kayak, or folding rubber boat, for shooting rapids; the decked canoe for sailing.

If canoeing is one of your hobbies, you naturally will include several of the various types mentioned in your pictures; but if you, like most of us, live in a town in which there are no canoe clubs that offer such diversified features, you probably will have to confine your filming to the types of canoes and activity at your summer vacation camp.

Obviously, each camp program is different, but most of them include several kinds of races in which there is a variation in the type of blade used or the number of men in each boat. First, you will want to reproduce the natural setting with several long shots of the lake, the finish line, with its many spectators, the participants getting the equipment ready and, finally, the all important human interest touches, done by closeups of friends waving good luck and of the acknowledgments of the canoeists as they leave for the starting line.

The best position for your camera, at the start of the race, is on a line with the bows of the boats and at a height of twenty feet or more from the surface of the water, because from this location the boats stand out as separate and distinct units instead of forming a conglomerate mass. Be sure to expose at least a foot of film before the actual start of the race and, later, splice in a closeup of the starting pistol as a shot is fired. This should be followed by a closeup of a blade as it is pulled vigorously through the water. Take this alongside the dock at any convenient time and, if you wish, you can fasten the canoe so that it does not move, thus eliminating the possible need of a follow shot. If you cannot secure a seat in a motor boat which follows along the course, take the scenes of the progress of the race with a long focal length lens from the shore. Be sure to use a good "pan" and tilt top on your tripod, for this smooths out the effect of the motion of the camera.

Agile water sport offers occasions for fine scenes

To show the finish, as it actually is, you will have to place your camera directly on the finish line. If possible, shoot toward the judges and spectators so that you will get the reaction of the crowd and the smoke from the timing pistol as an effective background. This should be followed by a closeup of the winner and the reward. You might ask how it is possible to take the start and the finish of the same race, which would require being at both places at almost the same time. The answer is that, generally, there are several heats of the same race that can be photographed as one.

Many camp regattas include novelty events, such as canoe tilting, that offer excellent opportunity for the alert movie maker. Let us consider two important rules that apply to all action shots. First, the use of a plain background concentrates the attention of the observer on the principal object, by eliminating all unnecessary and conflicting detail. Second, by having the sun at one side, you can increase the contrast and permit your audience to follow the action more readily. These requirements may be fulfilled by shooting from a low angle, using the sky as a plain background. If this is difficult, place your camera a little higher than normal and use the surface of the water instead.

Most black and white scenes are enhanced by the use of a filter, but it is wise to remember this fundamental principle: a color filter lightens all objects of approximately the same color as the filter and darkens all other objects. Therefore, if you use a dark yellow filter, all yellow objects and objects of colors near yellow in the spectrum, such as green and orange, will become lighter, while blue objects will become darker. Red filters mean that red and yellow objects become lighter, and green and blue objects will register darker than they appear to the eye. One apparent

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© P. D. Gendreau

A plain background of water centers attention on action

The clinic

FREDERICK G. BEACH, ACL

Super and filters ■ Supersensitive panchromatic film differs in its color sensitivity from regular panchromatic, and for that reason most of the yellow filters are of little value. If the best color rendition is to be obtained with supersensitive panchromatic, it is important to use a green filter. This cuts down on the red light to which the film is extra sensitive. For example, in scenes of people whose faces are well tanned, supersensitive panchromatic without the green filter would make the faces appear quite light. The green filter would cut out enough of the red to make the faces register somewhat darker. However, if for any reason it is desired to make darkly tanned faces lighter, a red filter will help and will at the same time cause all blue objects, including the sky, to register darker than normal on the film.

Camera speeds ■ When the movie camera is used to record action that is fairly close, such as that shown in the illustration on this page, the motion is likely to look blurred on the screen. The simple remedy for this trouble lies in working with a camera speed that is higher than normal. Twenty four or thirty two frames a second will do a great deal to smooth out the fast, irregular action. Another function of increased camera speed is to cut down exposure. Thus it is necessary to open the lens one half stop with a speed of twenty four frames and a whole stop with thirty two frames. This facility can be utilized in place of a neutral density filter when it is desirable to cut down exposure without stopping down the lens.

Garden closeups ■ The small metal titler to which the camera can be attached firmly is a very useful aid for the color filmer who likes to take pictures of flowers, insects and other small objects in the garden. The easel which holds the title cards can be made to serve as a framing or centering guide or it may be turned down out of the way. Although the depth of field at such close range is somewhat under one inch, it is nevertheless near enough to one to get remarkable shots.

THE CLINIC welcomes contributions from all readers, and a MOVIE MAKERS binder for the current year (sold at $1.50) is given for every item that is used. Information about tricks, special movie making stunts, time saving devices and homemade accessories is especially valuable. Let other movie makers know of the special wrinkles and ideas that you have worked out. It is not necessary to write an article; simply include the information in a letter, and the CLINIC item will be prepared on the basis of your letter, if the material can be used. Pass your ideas on to fellow cine filmers!

Twenty four frames a second is better for shots like this

Keystone View Co.

Title typing ■ The old stunt of using fresh carbon paper over the title card in the typewriter, and setting the machine so that the ribbon does not rise, produces much cleaner and sharper letters than does the regular method of typing. When the ribbon is used, the outline of the letters is not clean cut but, when one strikes directly through carbon, a sharp, clean impression is obtained. Care must be taken to prevent smudging the card when removing the paper from the machine.

Editing rods ■ The problem of what to do with loose one hundred foot reels while editing set me to working out some means for keeping them in order. I finally decided that several quarter inch rods placed on the table in a vertical position would help a good deal. They can be driven into holes or mounted on a strip of metal which, in turn, is fastened to the table. I found that four inches seemed to be a good height, although it is up to the user to work out the best length for his convenience. Some movie makers may find it more satisfactory to place the rods on the wall behind the work table so that reels can be slipped on them horizontally.—*A. Theodore Roth, ACL.*

Giant flood ■ The sun can be considered a giant flood light in the summer time and, as such, it should be handled in much the same manner as any other similar source of light. The old idea of having the sun at one's back in making pictures has become valid again with color filming, but black and white needs different handling. With black and white, don't be afraid to shoot when the sun is at the side of or somewhat behind the subject, but be sure to allow for the shadow side and to open the lens as if you were taking pictures in open shade. The old friend, backlighting, is effective but, unless a silhouette is wanted, it is best to forget that the sun is shining and to expose for the dark side of the subject. The danger of getting lens flare is not great unless one points the camera directly at the sun.

Slow motion ■ A much more realistic impression of shipwrecks, railroad crashes and other accidents done in miniature will be obtained if slow motion is used. A speed of forty eight frames is usually enough, although sixty four may not be too slow in some cases. Slow motion imparts a sense of power and force which is especially effective in the case of moving water, as in a storm

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Technical comment and timely topics for the amateur

An unusual view of Old Faithful, an excellent subject

Underwood & Underwood

Yellowstone shots

Suggested scenes to be recorded in this national park

LEO J. HEFFERNAN, ACL

YELLOWSTONE! What visions of magnificent waterfalls, lovely lakes, colorful canyons and gorgeous scenery this name conjures up! Yellowstone Park will ever be an inspiration to the cine cameraman, for nature here is at her extravagant best. Then, in addition to this wealth of scenic grandeur in Yellowstone, nature offers a cinematic show that might have been made especially for the movie camera—the play of the geysers!

The geysers are found in groups occupying basins or valleys, usually surrounded by heavy forest lands which, in turn, are bordered by mountains—a truly impressive setting for such splendid spectacles. Filming Yellowstone is divided naturally into two classifications—first, shooting the usual scenic beauties of the great outdoors and, second, capturing the marvels of subterranean disturbance, such as geysers, hot springs, the beautifully incrusted basins, made by white mineral deposits, and the natural bridge formed of lava.

The accessory equipment is important. A wide angle lens will obtain full views of mountains, geysers and waterfalls, without possibly dangerous scrambling to a more remote position. Tripods, filters, special effect filters, exposure meters, as well as camera equipment which permits of dissolves and radial wipes, all will aid in producing more interesting films.

As one ascends toward the peak of a great mountain, the light becomes more and more intense, and this is as true on an overcast day as it is in brilliant sunshine. Obviously, one compensates for increased actinic values by closing the lens diaphragm. Some photographers recommend, within certain limits, a half stop decrease for each thousand feet of elevation. It can be seen that very small stops will be used in Yellowstone, for most of the park area exceeds 8,000 feet in height. The quality of the sunshine varies greatly. If one is accustomed to work at a little above sea level, one must be careful not to be misled by appearances. Most shots will be made at *f*/22 or *f*/16, unless a heavy filter is used in front of the lens, but there also will be unfiltered scenes made in the canyons, where *f*/4.5 or larger stops will be necessary. The best advice is to take along a reliable exposure meter and to calculate filter factors very carefully.

The robust filmer will want to make a record of a trip by horseback over some of the 900 miles of trails. There are many inexpensive trips, such as those to Cascade Lake from the Canyon Hotel and to Lone Star Geyser from Old Faithful Inn. An elaborate program might permit a horseback trip over famous Howard Eaton Trail, made up of former short trails, starting and ending at Mammoth Hot Springs. At outstanding scenic points, ample footage should be made of the picturesque procession of horsemen moving along the narrow trail. It is necessary to dismount for each shot, as scenes made astride a walking horse will prove to be worthless. As much human interest as possible should be captured, but the riders must be warned against looking at the camera and against overacting. Try to prepare for especially good scenes by riding a sufficient distance ahead of the other equestrians to permit dismounting and setting up the camera. One can ride very comfortably on horseback with a tripod thrown over a shoulder in gun fashion, so that the camera can be kept mounted on the fully extended tripod, but the lenses should be capped to keep out the dust. A series of incidents may be planned which will break up any tendency toward monotony. Centering attention upon the novice horseman, to whom the trip is just a nuisance, is old stuff, but it never fails to click.

Color—gorgeous, splashing color—is to be found at every turn in the road or trail. Rainbow hues literally cry out for preservation on celluloid in the Grand Canyon of the Yellowstone, especially in the morning, in the evening or on a slightly cloudy day. It is truly marvelous coloring which makes this canyon the Mecca of cine minded visitors to the park. Dominating all the other colors on a sunshiny day is yellow, with glaring white spots here and there, but the other hues are clearly discernible on closer inspection. Those who have "done" the park in black and white will want to return for another picture with the new color film. They will want to shoot almost vertically down on the foaming Yellowstone River while standing on Inspiration Point, for this excellent viewpoint protrudes almost to the center of the canyon. To the southwest, a waterfall twice as high as Niagara gushes forth from pine clad hills and drops with an unceasing roar of protest against the law of gravity. It is here that the wide angle shots will be most effective—especially if color

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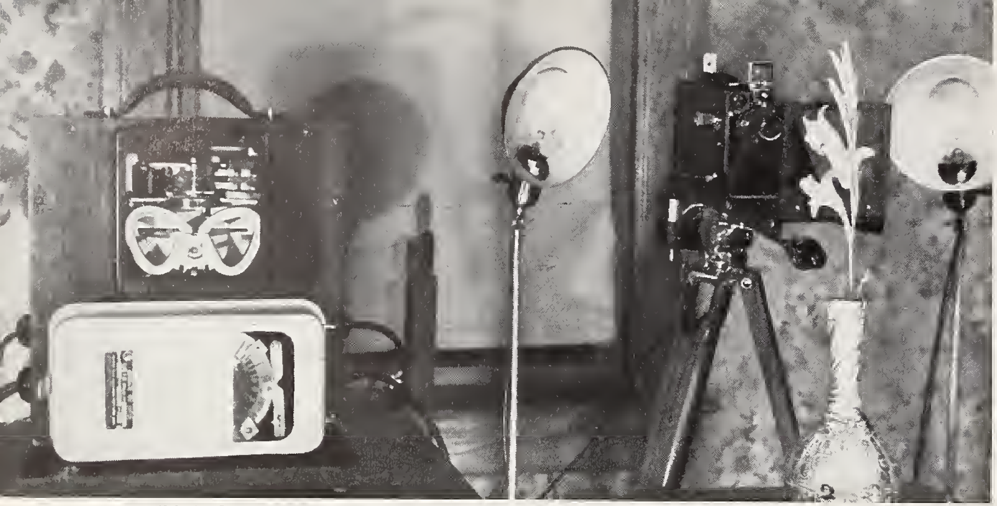

Edwin C. Rosenberg

Above, the setup; below, diagram of automatic control

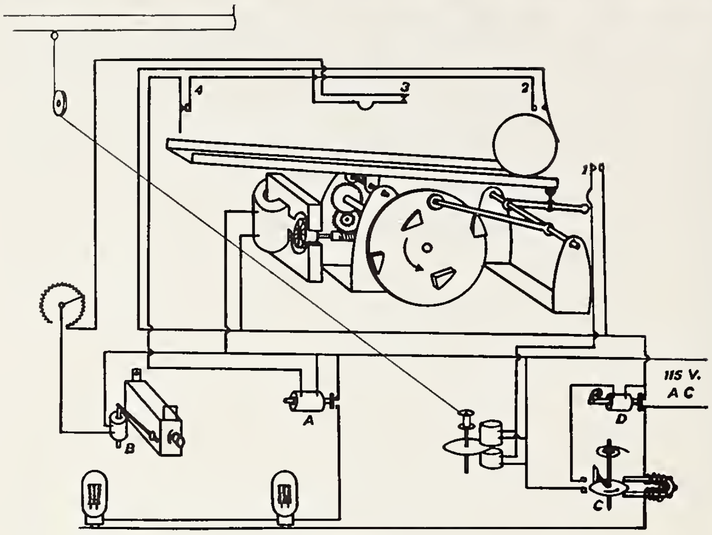

Diagram by E. L. Ritzmann, ACL; photographed by Bert Pratt, ACL

The camera robot

EDWIN C. ROSENBERG

WITH the greatly extended use of 16mm. natural color film, probably hundreds of thousands of flowers will be photographed this summer. When these movies are projected for an average audience, they will receive their share of "Oh's" and "Ah's", for the flower's beauty is enlarged upon the screen; but the audience's polite expressions would turn to amazed gasps if it could see the same colorful flower unfolding itself from a bud to full bloom in a few seconds.

At first, the petals struggle to open, one by one. Then, suddenly, the flower bursts open, revealing colors and graceful movement rarely seen on the screen. The flower seems to breathe as it turns toward the bright light. Strangest of all are the stamens that may be seen in a super closeup, writhing like the snakes on Medusa's head. If the scene is carried further, the beauty fades and the flower dies and withers away before one's eyes.

These effects can be achieved only by stop motion, and, because from three to sixteen days are required for the plants to bloom, a robot cameraman is necessary. E. L. Ritzmann, ACL, of Berkeley, California, has now developed a portable robot that will photograph a growing plant in color at any regular interval, while keeping the light uniform. In fact, it will do everything except water the plant.

New mechanism to facilitate filming unfolding flowers

The sketch shows a simplified version of the hookup, including details of the main unit in the central portion of the sketch. The main unit, or contact controlling device, was made from an old automatic time switch that is driven by a small telechron electric motor. The unit was turned on its side and the mercury tube was replaced by a seesaw holding an inch and a half diameter steel ball bearing. As the seesaw is tipped up and down, the ball rolls back and forth. Contacts numbered 1, 2, 3 and 4 in the sketch were made of a light spring metal, so that they would operate at the lightest touch.

During previous experiments, a clock was used that would allow only one tripping operation every fifteen minutes, but this new type of control may be timed differently by adding or subtracting pairs of tripping cams from the face of the dial. Variations may be made in timing, from every three minutes to every forty eight minutes. Experiments have shown that, for bud flowers, approximately one frame of movie film should be exposed every twelve minutes, which requires eight tripping cams. Then, when the flower is ready to bloom, sixteen cams will cause an exposure to be made every six minutes. This change will slow up the rapid movements of the flower at that period.

The dial face of the clock in the sketch shows only four cams, two to force the tipping arm upward and two to bring it down again, thereby causing the ball to roll from side to side at alternate operations, every twenty four minutes, with the dial making one revolution every ninety six minutes.

If the movement of the flower or subject is such that exposures are needed every three or four minutes, fourteen or sixteen cams may be added and one revolution of the dial may be accomplished in forty eight instead of ninety six minutes, by exchanging the one to one gear for a two to one gear in the gear train behind the dial. Forty eight minutes a revolution with sixteen cams would give an exposure every three minutes.

The simple magnetic devices, A and B, in the sketch, are next in importance. At A is the 115 volt "contactor" that closes the circuit which lights the two 500 watt lamps while the steel ball is taking its trip across the seesaw between contacts number 2 and 4.

At B is a magnetic coil with a moving solenoid which, with a few slight changes, may be attached to any camera to act as a shutter trip.

In the upper left hand corner of the sketch, a window shade is suggested, with its accompanying cord which runs to a small induction type, barber pole motor. The shade is drawn during the camera operation so that every exposure will be made under the same lighting conditions. However, the flower gets its share of natural light during the day when the shade is up between operations. To prepare the shade for this use, the little ratchet in the end of the roller must be removed. This will allow the shade to roll up by its own spring tension, after the picture has been taken and the electric motor has ceased pulling the cord.

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News of the industry

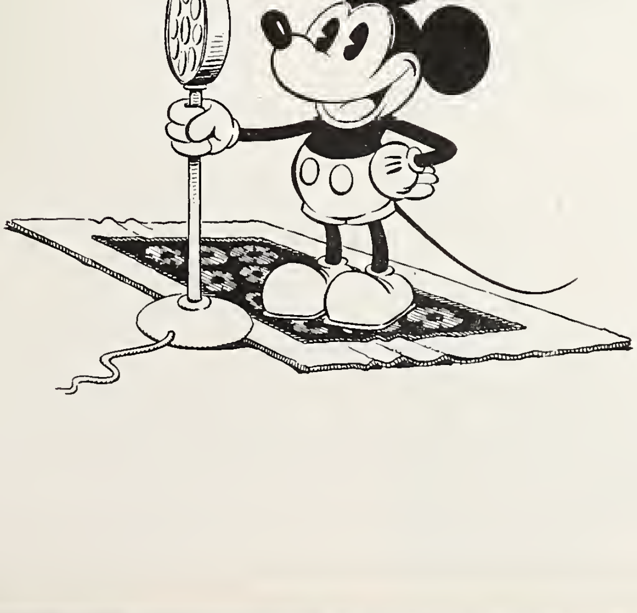
RUSSELL C. HOLSLAG, ACL

8mm. color ■ Kodachrome 8mm. film, long awaited by enthusiastic 8mm. movie makers, is now available. It is offered by the Eastman Kodak Company, Rochester, N. Y., in a size and spooling adapted to all double eight cameras. The processing and emulsion of the new 8mm. Kodachrome have been especially designed for use in 8mm. projection, and the speed of the film is stated to be one half stop slower than that indicated for the regular 8mm. black and white film. Exposure guides are furnished with each roll of film. No special attachments or filters are necessary under normal filming conditions, either for camera or projector. Any 8mm. projector can be used.

New Filmosound ■ A compact, moderately priced, 16mm. sound on film projector, contained in one case, has been announced by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. The machine, known as the Filmosound 138, is recommended for educational, classroom and sales use and for home entertainment purposes. The entire machine is contained in a single case, which also accommodates a 1600 foot reel of film. In use, the combined projector and amplifier unit is removed from the case, while the cover serves as the baffle for the self contained loud speaker. A new sound head has been designed for the reproducer, incorporating a rotating sound drum, flywheel and a floating idler. Voltages on exciter lamp and photocell are balanced automatically as the volume control is changed. Amplifier tubes are of the new metal type. Among the special features worthy of note are a new type of tilt device, operated by one hand, a motor rewind and a reel arm which can be attached quickly with a single screw. The projector finish is gray damaskeen, while the carrying case is covered with gray fabricoid to match. Two models are available, the 138-A, with 500 watt lamp and two film speeds (for running either sound or silent film), and the 138-B, with 750 watt lamp, which operates at sound speed only.

Mickey Mouse 16mm. sound ■ The first appearance in 16mm. sound on film of the famous series of sound cartoons, Mickey Mouse and Silly Symphony subjects, is featured this month by Kodascope Libraries, Inc., 33 West 42nd Street, New York, N. Y. According to Willard B. Cook, manager, an initial series of twelve subjects of these cartoons will be available, and included among them are the releases that proved the most popular in the theatrical field. Among the Mickey Mouse releases are: *Mickey's Birthday Party, Mickey Cuts Up, Beach Party, Mickey's Orphans* and *Barnyard Broadcast.* In the Silly Symphony series, the present titles are: *Arctic Antics, Winter, Mother Goose Melodies, The China Plate, The Spider and the Fly* and *The Bird Store.* These films will be available from any Kodascope Library branch on a rental basis only and for non commercial exhibition.

Kodascope Libraries now offers Mickey Mouse 16mm. sound



Arthur Wolff, ACL

Optiax, convenient device for finding exact camera field

Victor P. A. ■ Through the addition of a velocity ribbon microphone, together with a small pre amplifier, the Model 24B Victor Animatophone sound on film projector may be utilized as a public address system. By this means, it is possible to make vocal announcements through the amplifying circuit and loud speaker mechanism of the projector. The pre amplifier is a separate unit weighing six pounds, which plugs into a socket at the base of the Animatophone amplifier. The ribbon microphone, for use with the system, comes with adjustable floor stand. Such a public address system can be used in conjunction with, or independently of, sound on film exhibitions. Further information may be had from the makers, Victor Animatograph Corporation, Davenport, Iowa.

Photoscop moves ■ Photo Utilities, Inc., of New York, importers and distributors of photographic accessories and materials, including the well known Photoscop electric exposure meter, announce their removal to new and larger quarters at 10 West 33rd Street, New York City.

Photo Crafts catalog ■ In a well arranged, pocket size catalog, newly revised and brought up to date, the Photo Crafts Laboratory, Wantagh, N. Y., lists practically every chemical that the photographic worker may be able to use. The new catalog also contains many general and special formulae, besides much interesting information on developing and kindred subjects. A copy will be sent to anybody who writes to the Laboratory.

Frame counter ■ A new and improved device, by means of which

[Continued on page 264]

Answers the query "What's new?" for amateur and dealer

Circus cinematics

ALBERT N. MUELLER, M. D.

WHO does not recall, among pleasant memories of childhood, the annual visit of the circus? The excitement and thrill on seeing the first gaudy bill posters announcing the coming of The Greatest Show On Earth! Comical clowns, wild animals, daring performers and the monster street parade, all were illustrated in colors pasted on barns and fences or in empty store windows.

For days, the eventful date was talked about and plans were made for attending the parade and show. Unfortunately, during the last few years, most of the large circuses have discontinued the street parade, leaving only the smaller ones to carry on. This is a pity, as the parade created an atmosphere which, like the prolog of a play, was necessary for the full enjoyment of the day and the spirit of the occasion. A parade films nicely in color, with all the bright costumes, painted wagons and wild animals, and it makes an interesting beginning to a reel of circus life.

Many persons have never seen a circus erected in its entirety. Such details as the systematic manner of unloading the wagons and putting up the tents, with employment of elephants for manual labor, are little known. By having a film record of all this, one can reproduce at leisure, in his own home, an amusing and entertaining story of the circus.

I have a 400 foot reel of circus life, filmed over a period of several years at various intervals, that is very popular with my home audience. The children enjoy seeing the familiar scenes, while grownups live over the experiences of their youth. This is the secret of the perennial success of the circus and this is why it has survived all other amusements.

To film a story of the circus properly, one should begin with its arrival in town, either by truck overland, as the small ones travel, or down at the railroad yards. Here, in the early morning hours, the first train section will pull in. The cars contain the cook tent, big top and some menagerie equipment. It is usually light enough to get some shots, medium and closeups, of unloading the wagons from the cars. This is especially interesting if elephants are used to help in pulling and pushing.

Under and around the "big top" is fine filming field

You proceed then to the empty lot and shoot the arrival of the early wagons and their heavy loads. From now on, you will show the metamorphosis of a vacant ground to a glamorous tent city, which is built and rebuilt daily. Get some closeups of the stake gang using the old method of hand driving or the quick machine pile driver placing the stakes in rapid order. Then unloading the tent wagons, erection of the cook tent and preparation for breakfast carry the film along. With supersensitive stock, one can get good shots of the men cooking the first meal, as the tent flaps usually are left open.

By this time, the grounds are swarming with visitors and the ever present boy who wants to help for his admission ticket. Follow some of the boys with your camera, and you will be rewarded with comic scenes, as they run to and fro at the commands of the circus boss. He is a hard taskmaster and knows how to get the most out of his workers. The trained elephants, you will find, are now being used to good advantage, pushing and pulling the heavy wagons around and also assisting in erecting the "big top"—poles and canvas. A few shots of the large poles and tents going up will make a very interesting sequence. Wandering about the grounds looking for atmosphere, you no doubt will see many chances for human interest scenes, such as inquisitive boys peering into menagerie wagons (underneath the canvas covers), peeking under tents already erected and the small child gazing wonderstruck at what is perhaps his first sight of a wild animal. Sometimes a performer or a side show freak may be seen on the grounds and may be filmed if you are quick. Closeups of animals on a picket line, such as camels, elephants, ponies, etc., make amusing scenes.

If a street parade is to be held, get there early so as to have a good position, with the light or sun at your back. Shoot the oncoming parade at an angle, for it will then pass your point more slowly, giving more footage. Color film is ideal for a parade. A wide angle lens is useful, otherwise it will be necessary to move further away in order to include the entire object in your finder. The crowds are inclined to push closer and are likely to interfere with steady filming. Short shots of the crowds, made when there is a lull or interval in the parade, will add interest and vary the monotony. Closeups of the clowns and of the usual swarm of small boys around them like hero worshipers should be included.

First thing in the afternoon, go to the circus grounds and film the side shows and their ballyhoo men. Then take a closeup of the "main top" admission entrance and the ticket wagon, with the crowds milling around. This is very interesting if you have some acquaintances in the scenes. Inside the "big top," there is enough light in the afternoon on a summer day to film the performances, if a fast lens and supersensitive film are used. To cover scenes close to your seat in the circus and in the nearest arena, as well as the grand parade, animal acts, aerial artists and comic stunts of the clowns, several hun- [Continued on page 258]

Here's an opening shot for sequences after the parade

Cushing from R. I. Nesmith and Associates

Publishers' Photo Service

A camp tale

EPES W. SARGENT, ACL

MAKING a movie is becoming standard practice with many summer camps for boys or girls. Yet, in a majority of instances, each film seems to follow the "Dawn to Dusk," "A Day in Camp" or "From Reveille to Taps" type of continuity. The appended scenario is designed to give a trifle more story without materially increasing the demand on the ability of the boy players or the camp movie maker. It has an added advantage in that it contains mild propaganda designed for between season showings to parents of prospective campers.

Naturally, the outline cannot be more than a general design upon which to embroider such special incidents as may be peculiar to each camp. These added scenes will suggest themselves as will their proper positions in the film.

Work on the picture should be commenced in time to show the film to the boys before camp disbands, and it is a good plan to make scouting for locations a part of the camp work early in the season.

THE TENDERFOOT

Cast

Bill	A New Boy
Jack	A Camp Veteran of Two Years

Counselors, boys (or girls), camp cook, bugler.

Scene

1. *Long shot.* Showing the camp. This scene is designed to give a general survey. The boys are getting settled and there is much activity.

2. *Medium shot.* One of the tents or bunk houses, with Jack, dressed in the camp costume, unpacking his bag. A counselor enters and inspects with a nod of approval.

3. *Long shot to medium.* Headquarters. The camp wagon or bus drives into the scene and Bill gets out. His city clothes and tired air are in complete contrast with Jack's camp outfit and alert manner. Bill's duffel bag is thrown out; the counselor greets him. He calls and Jack enters. Jack tells him to pick up his bag. Bill wants to know where the porter is. He tries to lift the bag, staggering under its weight. Jack good naturedly picks up the bag and the two exit.

A simple scenario around which camp scenes are filmed

4. *Near shot.* Inside the tent as in 2. Jack and Bill enter, Jack carrying bag. He tosses it down and points to his half of the tent, all shipshape (swing the camera to get this angle, then swing over to get the empty half). Jack tells Bill to get busy himself. He dumps out the bag and tells Bill what to do. Bill speaks:

Camp sports can be included in this script as desired

Title 1. *"Mom promised I could loaf this summer, but Dad made me come to camp."*

4. *Continued.* Bill ruefully finishes speaking. Jack laughs and tells him that he will like it. Bill starts to work slowly.

Title 2. *A week later.*

5. *Long shot.* From the head of the camp street. Follow with a succession of scenes: groups of boys, each engaged in camp craft or handiwork. Include closeups of some of the results, as in leather working, wood working, etc.

6. *Near shot.* Jack trying to teach Bill to make a fire with friction. Bill is listless. He says:

Title 3. *"What's the use of all that trouble?"*

6. *Continued.* Bill takes a card of matches out of his pocket and lights the fire. Jack shakes his head. Bill lies down. Jack prods him up.

7. *Medium shot.* The bugler sounding mess call. Some boys in the background start running to the dining room.

8. *Medium shot.* Bill and Jack. Jack tells Bill to come on. Bill is not very interested. He gets up slowly and they exit.

9. *Medium shot.* The dining room. The boys sitting down at the tables.

10. *Semi closeup.* Bill and Jack. Bill's plate is nearly full and he is eating listlessly. Jack's plate is empty. A counselor enters the scene, looks at Bill's plate and expresses concern at his lack of appetite. Jack says:

Title 4. *"He doesn't take enough exercise to get an appetite."*

10. *Continued.* The counselor is worried; he looks at Bill's tongue, feels his neck for fever and passes on.

11. *Medium shot.* Exterior of mess hall. Boys coming out. Jack and Bill are last. They exit.

12. *Near shot.* Bill and Jack inside their tent. Bill is lying on his bed. Jack grabs him, there is a playful scuffle and Jack drags Bill out.

13. *Medium shot.* Outside of the tent. Jack and Bill come out, Jack leading.

14. *Medium shot.* The two boys leaving the camp on one of the trails.

15. *Near shot.* Jack is trying to show Bill the difference between the north and the south side of a tree. He is holding a compass in his hand. He points to the compass.

16. *Closeup.* The compass, the needle pointing north.

17. *Near shot.* Jack points at the side of the tree.

18. *Closeup.* North side of the tree.

19. *Near shot.* Jack and Bill,

[Continued on page 260]

Filming Maryland's story

PAUL BRAUN

How a movie did its part in three hundredth honors

IN 1934, the Free State of Maryland reached its three hundredth birthday. Elaborate celebrations were in preparation by the state and other patriotic organizations. The usual things—pageants and parades—were planned. However, these various celebrations were to take place in such historical spots as to make the attendance of the general public extremely difficult, and consequently few youngsters would be able to see them.

Entertaining children has been my interest for the past six years, and I have traveled with my marionettes from New Jersey to the great Smoky Mountains of Tennessee, playing in all sorts of places, from modern theatres to log houses equipped with oil lamps for illumination. The problem of how to enable the youngsters to enjoy the celebration bothered me until suddenly a light broke through the gray mist—the way to do the stunt in an up to date fashion was to make a movie, a sound movie which would present the actual founding of the State of Maryland. My mental picture of the possibilities developed fast; we would begin the story in England and would wind it up in actual historical spots in Maryland; we would present the story from the point of view of the youngsters; it would run for the average class room period, or about thirty five minutes. As I thought of the possibilities, I planned to steal a lesson from the theatrical field. We would make it an adventure story—fill it up with Indians, have raids, burn down cabins and yet stick close enough to historical facts to meet the needs of school teachers, which, in case you don't know, is a tough job. We would make the picture on 16mm. film so that it could be shown in any class room, regardless of size.

With all this in mind, I rushed back to Baltimore to find a sponsor. After all, a picture like the one that I wanted to make would cost money.

I tried a local newspaper, but the manager said that it couldn't be done. We couldn't get the organization together in time. The schools wouldn't cooperate and, finally, it would cost too much.

Frame enlargements from "A Story of Early Maryland"

Then I took the idea to a young advertising man who was connected with a local department store. He thought that the idea was good and he thought that the store would increase its prestige if it sponsored the film. Then, after discussing the plan thoroughly, the officers of the store agreed to back us! This was splendid progress, but we had our orders; we were to go easy and were to make the picture on a shoe string, if possible.

At this point, Howard Goodman entered the field, bringing with him a lot of experience as an amateur movie maker. Together, we interviewed the state commission, the school board and eminent state historians. From these gentlemen, we got advice and information and also orders to the effect that they would accept nothing but the best from us and that, if we wanted to see the picture accepted by the state, we must make it historically exact. All these interviews were helped a great deal by continual smiles from these gentlemen, if you know what I mean.

Then, we added another man to our group—Brent Gunts. Later, he organized our cast of four hundred actors, coaxed them into remaining happy while they ran through briars and over stones, almost nude as were our brand of Maryland Indians some 300 years ago. We had a lot of minor casualties but no law suits, so you can gauge his ability by this.

We tried to use the material supplied by the historians but we found that, although they knew all about names, dates, places and how to word lengthy phrases for the actors to speak (which would have turned our picture from a "thriller" into a comedy, as far as the kids were concerned), they could not give us pictorial details. We wanted to know what the settlers looked like and exactly how the Indians dressed. Did the colonists bring plows on the boats? Did they have means of keeping clean and spotless, or were our forefathers a little down at the heels when they landed? How did the Indians live? How did they make their homes? Did the settlers teach the Indians to plant, or vice versa? All these queries were answered only by—ourselves.

We searched the museums, libraries and other musty places for old prints, engravings, broken and rusted guns, old letters and documents. Reproductions of famous paintings of very important characters were consulted for makeup and costume. We actually used some of the old swords and Indian stone implements that were traced to the period of our story.

Our first scenes purported to be shot in England. We borrowed a local church for the interior. All furnishings and properties were XVII Century reproductions. We made the scenes at night and used flood bulbs in homemade reflectors. Some of these were made of large pieces of wall board painted with aluminum and equipped with sockets to hold the bulbs. We had other sheets of wall board which were just reflectors for use outdoors. For special lighting, we used baby spotlights loaded with flood bulbs. All the shots were made with an exposure meter. I feel that, by using a meter, we saved a couple of thousand feet of film.

Our outdoor shots were made on the locations of the actual historical events that were to be

[Continued on page 258]

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Chicago serves ■ More than two hundred members and guests of the Chicago Cinema Club attended the Fourth Annual Doctors' and Dentists' Night recently staged by that veteran group, according to the report of H. G. Aschoff, ACL, vicepresident. Among the films screened were personally produced clinical pictures by Doctors Albert C. Baxter, ACL, of Springfield, Ill.; E. L. Compere, ACL, of Chicago; Francis D. Hart, ACL, of Worcester, Mass.; S. H. McAfee, ACL, of New Orleans, La. Other outstanding meetings reported by the Chicago club include a record breaking gathering of more than three hundred in the auditorium of the Bell & Howell Company, for a program of outstanding pictures presented by that company, and a competitive gathering at the club's headquarters devoted exclusively to 8mm. films. First award was taken by Charles Wyman, with *The Royal Road to Romance*, while second place went to Mr. Aschoff, for his *Building an Airplane*. Guest films on this program, supplied by the Los Angeles 8mm. Club, included *Conscience*, by Claude W. A. Cadarette; *San Diego Exposition* and *The Entomologist*, by Dr. Hugo Linek; *Pomona Fair*, by R. B. Clardy. Thursday is the weekly meeting night.

Students' story ■ In Newark, N. J., the second year English classes of Barringer High School have completed production of a 600 foot, 16mm. photoplay, *Be Yourself*, the story of a youngster who learned to be an individual. Football sequences filmed during the Barringer-East Orange game, a school contest steeped with traditional rivalry, furnish much of the background for this attempt at psychological drama. The students have had the willing cooperation and interest of principal Raymond B. Gurley in this endeavor to adapt the flexible medium of movie making as a method of expression, as well as the constant aid of Clara M. Gray in matters of scenarization, casting and direction. The photography, editing and titling of the film were in the charge of Vincent P. Biunno, ACL.

Rockville Cinema Club working on a recent production

L. A. listens ■ In preparation for the rising tide of summer filming, members of the Los Angeles Cinema Club recently listened to addresses by B. J. Burns and Paul Levinson, manager and assistant manager respectively of the Eastman Kodak processing laboratory in Los Angeles. While the fundamental principles of good photography were not neglected in this presentation, both men emphasized the possibilities and problems of color filming particularly. A brisk question and answer period followed the formal papers, and members' films in Kodachrome were screened for clinical discussion. *Oddities of 1935*, a topical reel by Jack Richmond, concluded this program. At an earlier gathering, Major F. J. Rutland presented his color film of the late British Silver Jubilee with an informal discussion of its production, and the meeting was rounded out with the screening of contest films submitted in a "100 foot, uncut, unedited" competition. First award went to Major Rutland for a scenario reel of a child and a pony, with second and third places to Messrs. Orth and Chapman. The reports of secretary A. L. Gram show the Los Angeles club to be growing steadily in strength, with the introduction at each monthly meeting of from six to a dozen new members.

Stockton forms ■ More than twenty charter members joined the Port Stockton Cine Club, recently organized in Stockton, Calif., according to the report of Edmon V. Kaiser, ACL, first president. The other officers include Delbert Price, vicepresident, and Roy L. Strong, secretary treasurer. Jack Abrams, a cameraman in theatrical motion pictures, is associated with them on the board of directors. Meetings will be held on the second and fourth Thursdays of each month.

School shoots ■ In Connecticut, the New Haven High School Motion Picture Club has successfully completed and screened before the student body and guests a 16mm. newsreel of school events, called *Hillhouse Highlights*. Organized more than two years ago, this New Haven school club is one of a growing number of student cine clubs which have started only as motion picture appreciation groups, to expand with experience into full blown amateur producing clubs, making and studying their own films. In the words of William Kelly, president and moving spirit in this new phase of the club's work, "We believed that a better way to learn about motion pictures would be to make one of our own—and this is what we have done." Working with Mr. Kelly during the past year have been Wallace Rosenthal, vicepresident; Florine Bowers, secretary; Ruth McClelland, treasurer. Kenneth E. Nettleton, ACL, a veteran movie maker of the New Haven area, has served the club as unofficial technical advisor.

Milestone ■ Marking its first anniversary of activity, the Buffalo Amateur Cinema Club met recently at dinner for its first annual election of new officers. Those chosen are Leon A. Kreger, ACL, president; George Thomas, ACL, vicepresident; Dersey B. Doll, ACL, corresponding secretary; Elizabeth Koepf, recording secretary; Albert F. Watts, jr., ACL, treasurer. Late meetings of this strong group have featured a screening of *Ultima Thule* and *Peggy's Cove*, Ten Best award winners by Edward Bollinger, ACL, of the Buffalo club; an illustrated talk on home reversal processing; a clinical screening of 16mm. color films, and the exposure by Walter Chapelle of a test roll of interior color film at the club meeting. The Buffalo club meets on the second and fourth Monday of each month at 8:00 p.m., in the Museum of Science building in Humboldt Park, and all movie makers in the community are invited to attend a meeting as a guest of the club.

[Continued on page 262]

Foremost in the Field

MAGAZINE CINÉ-KODAK, *already the favorite of expert and beginner alike...*

CHECK the features of Magazine Ciné-Kodak against your own prescription of an ideal camera.

First, of course, it loads in three seconds with 50-foot magazines of any of four films—Ciné-Kodak Panchromatic, Super Sensitive "Pan," regular Kodachrome, and Kodachrome Type A for artificial light. Wholly or partly exposed, they may be slipped in and out of the camera at will, without the need of wasting even a single frame. Footage indicators on each magazine, which register whether they are in or out of the camera, tell you how much unused film remains. The camera may be operated at 8, 16, and 64 frames per second. And alongside the secured winding crank there's a tiny button that pulses under your fingertip once every twenty frames of film so that you can gauge scene length while your eye remains at the full-vision eye-level finder.

New design view finder system

Magazine Ciné-Kodak is fitted with a Kodak Anastigmat *f*.1.9 lens, interchangeable with any of four telephotos by the simplest, most positive method ever devised. Press a button, turn the standard lens, and off it comes. Substituting a telephoto is every bit as easy. The telephotos: 2-inch *f*.3.5, 3-, 4½-, and 6-inch *f*.4.5. One finder system serves them all—quickly, accurately.

Magazine Ciné-Kodak is priced at $125; $137.50 with the de luxe carrying case illustrated above.

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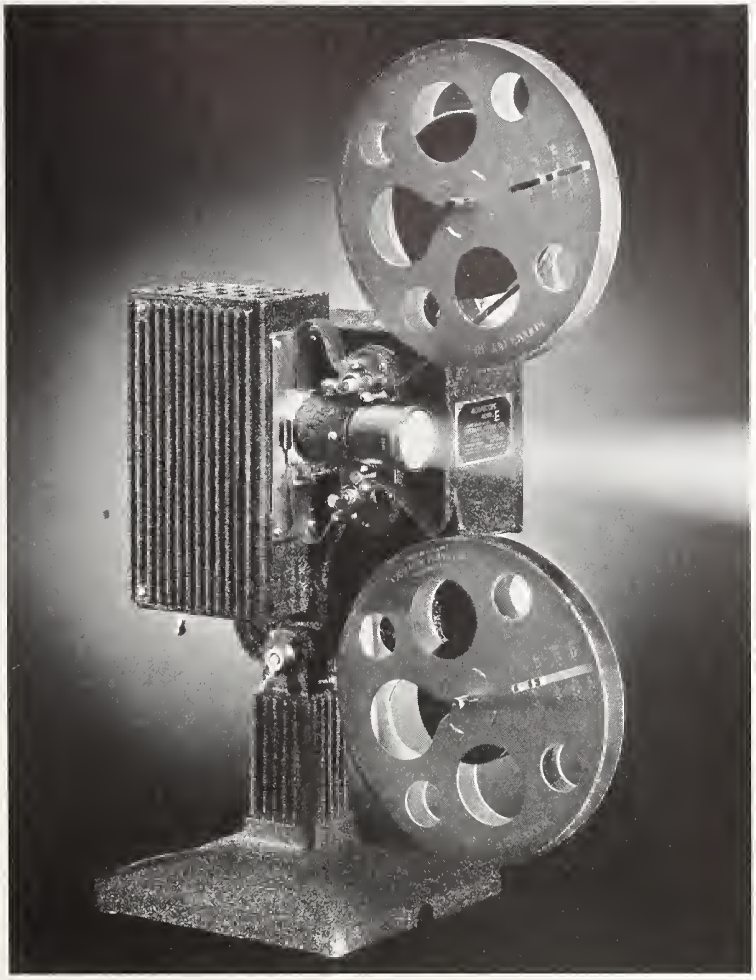


KODASCOPE, MODEL E, *shows the way in Economy, Brilliance, and Performance...*

NOTE this list of Model E features before you read its price to quickly realize why the "E" is showing its heels to the 16 mm. projector field.

Up-to-the-minute style—that's apparent. Cool, quiet operation. Its purring performance can be directly traced to a reduced number of bearings, all of which are pre-lubricated. There are, in fact, only two minor oil ducts. Variable speed control, too—and fast motor rewind. Its base is cleverly constructed for projection from the top of its carrying case. The tilting device permits a 30° tilt. The "E" has a new-design fixed-center framing device that eliminates any need for re-tilting the projector.

The Model E may be obtained with any of five lenses, three lamps. The lenses: 1-inch *f*.2.5, 2-inch *f*.1.6, 2-inch *f*.2.5, 3-inch *f*.2, 4-inch *f*.2.5. The lamps: 400-, 500-, and 750-watt—from which you choose the combination exactly right for your needs. With *f*.1.6 lens and 750-watt lamp the "E" bows to no 16 mm. projector *in illumination supplied to the screen.*

And the price of this versatile performer? $39.50, plus lens and lamp. For example, $54.50 with 2-inch *f*.2.5 lens and 400-watt lamp —a combination supplying ample brilliance for average home showings.

ANY, Rochester, N. Y.

8 mm.
KODACHROME
is ready!
see inside back cover
of this issue for details.

Kodachrome for Eights

[Continued from page 239]

3. When making flat, distant mountain pictures, sea views, snow scenes or pictures of light colored objects, use one half stop smaller for each condition.

If these points are considered in reference to the existing sky conditions, the pictures will not be far from perfect in exposure.

There are, however, a few variables that influence exposure; for example, there is the general color shade of the subject. An average subject is said to be one that has an equal number of light and dark tones. If a scene is made up entirely of dark tones or is composed entirely of dark colors, such as deep purple pansies, dark green trees, etc., it is obviously going to appear dark on the projection screen. Therefore, a little more exposure should be given to dark colored subjects, not to change the color but to give more transparency to the projected picture. About one half to one stop more of exposure can be given to such dark colored subjects.

On the other hand, light colored objects—for example, yellow tulips, snow or beach sand — reflect substantially more light than average subjects. Pictures of such scenes can be stopped down about one half stop, which will improve color rendering, definition, etc.

The four sky conditions recommended above are for the hours from 9:00 a.m. to 4:00 p.m. in summer and 10:00 a.m. until 3:00 p.m. in winter in the north. Pictures made before or after these hours should be given additional exposure, from one half stop at 4:30 p.m. up to *f*/1.9 at the time of sunset.

Likewise, in the winter months in the north (Washington, D. C., through to the northern U. S. boundary), about one half to one stop larger should be used. When there is snow on the ground, this can be reduced, or stopped down one half stop.

Closeups made at two or three feet require more exposure than pictures of the same object at infinity. Suppose that the sky chart indicates *f*/5.6 as the correct exposure for a prevailing light condition for an average subject, twenty five feet or so from the camera. Then, the same subject, when photographed as a closeup, two to four feet from the camera, should be exposed at half way between *f*/5.6 and *f*/3.5.

A satisfactory way to arrive at a fundamental basic exposure value is to make a short test of two or three feet of film of any selected subject at three or four different diaphragm openings. If the sky chart indicates an opening of *f*/5.6, make one test at *f*/3.5, one with the pointer set half way between *f*/3.5 and *f*/5.6, one at *f*/5.6 and one set half way between *f*/5.6 and *f*/8. One of these will be the preferred exposure. By projecting the test, you can find the correct diaphragm to use for that particular type of sun or sky condition.

It is advisable, whenever possible, to use a light or medium colored background. Pictures made with very dark backgrounds, such as the deep shade of trees, are usually very uninteresting, and the dark background will detract from the color value of the picture. Pictures with white or very light backgrounds tend to glare on the screen.

While pictures can be made in the shade of trees or buildings, care must be given to estimate the correct exposure. Subjects in average shade require about two diaphragm stops larger than that which would be used if the subject were out in the open. The sky chart can be followed. If the sky chart indicates an *f*/5.6 light, an object in average shade would require an exposure at *f*/2.8. If the shade is very deep and dark, then use three stops larger, or *f*/1.9.

Of course, the color or general tone of the surrounding areas of the shaded subject will influence the exposure. If the shaded area is surrounded by buildings painted white, the reflected light will be much stronger than it would be if the buildings were painted a dark color. The difference probably would amount to about one diaphragm stop.

The most pleasing results will be obtained if camera users will refrain from unnecessary "panoraming" or camera tilting. If one must "panoram," it should be done very, very slowly.

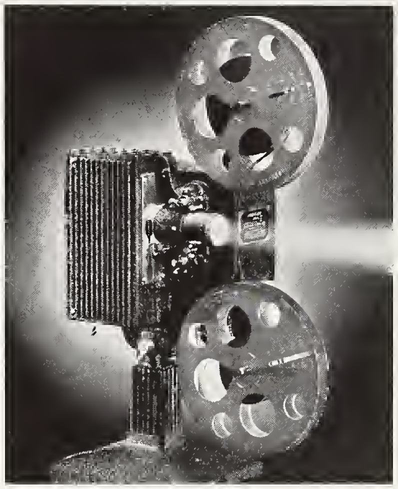
There are certain factors in the projection of color films that must be observed to obtain the best results. Extraneous light falling on the screen will flatten the color quality of the picture. Color films should be projected on a clean screen. A screen with a slight tint of yellow or brown, for instance, will throw the color values of the picture out of balance, causing flesh tints to appear too ruddy or yellowish and also causing blue skies to appear a greenish blue. These same defects might also be caused if the projection lamp is badly blackened from age or if it is burning far below its rated voltage.

Many are tempted to try projecting an extremely large picture. This causes color pictures to lose their snap and brilliancy and is not recommended. The best results are obtained by projecting to the size recommended for the particular wattage of the projector used.

In black and white photography, we sometimes use a yellow filter to absorb the blue haze present in distant landscapes or mountain views. For this purpose, with Kodachrome film, we have a special haze filter. This filter does not absorb haze in the same way that the yellow filter does on black and white film. Instead, it absorbs only ultra violet

HERE! WE HAVE

UP-TO-THE-MINUTE THINGS FOR THE MOVIE MAKER



KODASCOPE "E" PROJECTOR

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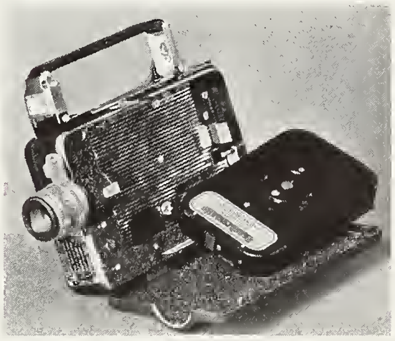

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light. Strong haze, smoke or fog are not penetrated, so that they record on the film about as they appear. The ultra violet, or haze, filter can be used to its best advantage in mountainous countries, on ocean voyages and in making aerial views and snow scenes.

For pictures with artificial light, such as white flood bulbs, it will be necessary to use a light blue filter. Since Kodachrome Eight film is balanced for noonday sunlight, pictures made with artificial light without the blue compensating filter will appear reddish on projection. This filter has a factor of 4x, so that two diaphragm stops larger must be used with it. While there is a special artificial light film available for 16mm. cameras, it will be some time in the future before it will be offered on 8mm.

For artificial light pictures with Kodachrome Eight, a minimum of two Kodaflector units (4 flood bulbs) will be necessary to make pictures at *f*/1.9, using an artificial light filter.

In making artificial light pictures, it must be borne in mind that the two Kodaflector units, or four flood bulbs, will illuminate satisfactorily only a certain area, about six square feet, when they are placed at a distance of three feet from the subject. For larger areas, more light will be required. The following table may help to clarify the situation: Standard:

4 flood bulbs (2 Kodaflector units)
3 feet from subject
Diaphragm *f*/1.9 with filter
Area illuminated: 6 square feet

f/1.9	*f*/1.9
6 sq. ft.	12 sq. ft.
4 lamps at 3 ft.	8 lamps at 3½-4 ft.
2 lamps at 2.8 ft.	
f/1.9	*f*/2.8
24 sq. ft.	6 sq. ft.
16 lamps at 5-6 ft.	8 lamps at 3 ft.
	4 lamps at 2.8 ft.
f/2.8	*f*/4
12 sq. ft.	6 sq. ft.
16 lamps at 4-5 ft.	16 lamps at 3 ft.
	8 lamps at 2.8 ft.

The above table is given to illustrate how the number of lamps is increased to compensate for smaller lens apertures or larger scene areas. In the case of the larger areas, the lamps should be placed as close to the subject as possible without showing in the picture. The Kodachrome artificial light filter must be used for pictures with artificial light on Kodachrome Eight, and the above tables are based on the use of the filter.

Since the dyes used to color Kodachrome film are soluble in alcohol, it is obvious that any film cleaner containing alcohol or other solvents will dissolve some of the dye from the film, destroying color balance. It is therefore of extreme importance that the film

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1 Filmo 70D, black turret, *f*/3.5	**115.00**
1 8mm. Keystone *f*/3.5	**19.50**
1 16mm. Keystone Model A *f*/3.5	**22.50**
1 70E Bell & Howell late model	**99.50**
1 Victor Model 3 *f*/2.9	**44.50**

● PROJECTORS

	Sale Price
1 Bell & Howell S Projector and Case, 500 watt	**$ 98.50**
1 Bell & Howell ST Projector and Case, 750 watt	**105.00**
1 Bell & Howell JS Projector and Case, 750 watt	**152.50**
1 Ampro Model K Projector and Case, 750 watt	**95.00**
1 Ampro Model KS Projector and Case, 750 watt	**99.50**

● LENSES

	Sale Price
1 2″ *f*/3.3 Wollensak	**$ 22.50**
1 3″ *f*/4 Hugo Meyer	**45.00**
1 1″ *f*/1.5 Wollensak	**23.50**
1 2″ *f*/1.5 Wollensak	**34.50**
1 3¾″ *f*/3.3 Wollensak	**25.00**
1 6″ *f*/4 Wollensak	**32.50**
1 6″ *f*/4.5 Dallmeyer	**27.50**

● ACCESSORIES

	Sale Price
3 Photoscop Meters, each	**$ 9.75**
3 Willo Cine Meters, each	**2.95**
1 30x40 Shopworn Beaded Screen	**8.50**
1 Thalhammer Junior Tripod	**14.50**
1 Craig Jr. Splicer	**4.75**
1 Craig Sr. Splicer and Rewinder	**10.50**
25 Filmadors, slightly used, each	**2.25**

be cleaned only with a preparation recommended by the manufacturer of the film and only when an accumulation of oil and dust makes it necessary.

In conclusion, the general formula for obtaining satisfactory results on Kodachrome Eight might be summed up as follows:

1. Make as many views of subjects as close to the camera as possible—two to twenty five feet.
2. Make more than one view of each subject—a medium shot, a semi closeup and a closeup.
3. Use either the sky chart or the exposure guide packed with each roll of film to determine the correct exposure.
4. Hold the camera steady. If you must "panoram," do it slowly.
5. When calculating exposure, make some compensations for the time of day and the time of year, for the color shade of the subject and for distance of subject from the camera.
6. When making artificial light pictures, check distances of lights from the subject carefully. Also check the area any given number of lamps will illuminate efficiently and use a filter for true color rendition.
7. When cleaning the film, be sure that there is no alcohol in the cleaner, for any cleaner containing a solvent will ruin the color in the films.

The clinic

[Continued from page 242]

at sea performed in a small tank or pool. It also prevents smoke that may be used on model sets from being whisked away in very unrealistic fashion.

Sound projection ■ In order to obtain satisfactory sound projection, it is not necessary that the room be "dead," so that there is little or no resonance. If the room is too "dead," the sound will lack brilliance. However, it is often necessary to change a projection room somewhat to prevent reverberations. Usually a thick rug will take care of the average room, but in some cases hanging a material on the wall, such as monk's cloth, will help. In the home, it is often possible to get good sound projection conditions simply by drawing any heavy curtains that may be in the room. A little experimentation will soon show just how "dead" the room must be for best reproduction.

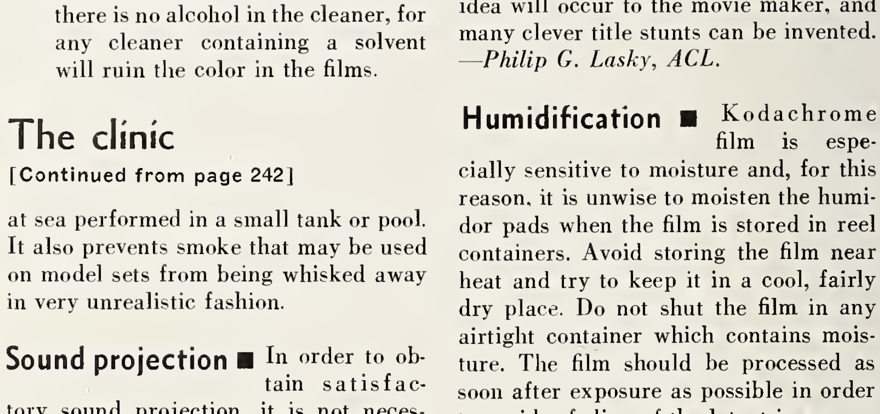
White letters ■ Show card white is opaque and has high reflective properties. It may be used effectively for painting over black letters that have been cut from newspapers for the purpose of titling. When reversal film is necessary instead of positive, the white letters are imperative. I have found the show card white to be superior to white paper for titling purposes.—*Norman Clappe, ACL.*

Wipe ■ A creditable effect of a title wipe can be made by lettering the title on a piece of translucent material, such as matte celluloid or tracing paper, and lighting the title from the rear with transmitted light. In order to make the wipe, hold a piece of cardboard against the back of the title so that the light will be cut off. Then, while the camera is running, gradually move the cardboard to one side, allowing the light to pass through the title and thus bringing it into view. Variations of this idea will occur to the movie maker, and many clever title stunts can be invented. —*Philip G. Lasky, ACL.*

Humidification ■ Kodachrome film is especially sensitive to moisture and, for this reason, it is unwise to moisten the humidor pads when the film is stored in reel containers. Avoid storing the film near heat and try to keep it in a cool, fairly dry place. Do not shut the film in any airtight container which contains moisture. The film should be processed as soon after exposure as possible in order to avoid a fading of the latent image.

Copying ■ Many movie makers are not aware that a copying service, whereby snapshots, drawings and titles may be photographed on film for a nominal charge, is available. Fre-

Another lens table for the cine note book or card file



DEPTH OF FIELD TABLE FOR THE 6-INCH, f4.5 TELEPHOTO LENS.

DISTANCE FOCUSED UPON.	RANGE OF SHARPNESS											
	f4.5		f5.6		f8		f11		f16		f22	
	MIN.	MAX.	MIN	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	245	INF.	229	INF.	194	INF.	162	INF.	128	INF.	101	INF.
200	152	293	145	320	130	430	115	INF.	97	INF.	81	INF.
150	121	197	117	208	107	250	97	333	84	INF.	71	INF.
100	86	119	84	123	79	136	73	158	65	214	58	378
75	67	85	66	87	63	94	59	104	54	125	48	167
60	55	66	54	68	52	72	49	77	46	88	42	107
50	46	54	46	55	44	58	42	61	40	68	36	79

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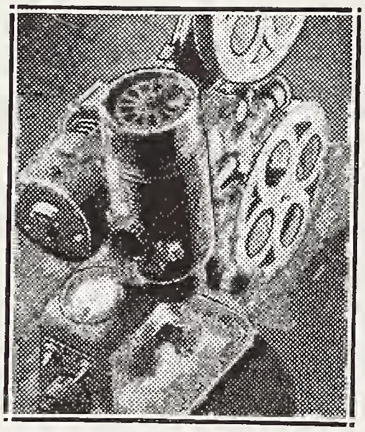

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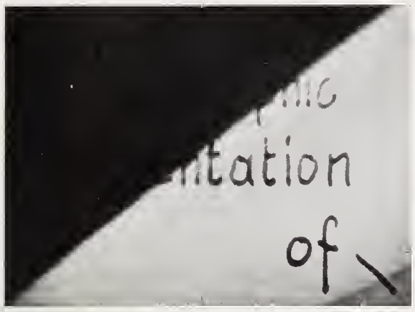

Wipe made with transmitted light by Philip G. Lasky, ACL

quently, it is as cheap, if not cheaper, to have this done commercially than to attempt it yourself with a titler or other means. A sheet of practically any size can be filmed, and sufficient footage is provided for proper screen time.

Annual meeting of the League

AT THE tenth annual meeting of Amateur Cinema League, Inc., held, in the new offices of the League, 420 Lexington Avenue, New York City, on May 13, Stephen F. Voorhees, John V. Hansen, Arthur A. Hebert and Roy W. Winton were reelected as directors, for a term of three years. At a meeting of the Board of Directors, following the annual meeting of members, the League's Executive Committee was reappointed, consisting of the officers of the organization and C. R. Dooley. Present League officers hold over until the 1937 annual meeting.

The annual meeting was opened with a tribute to the League's founder and pioneer President, Hiram Percy Maxim, who died February 17, 1936, and all present stood for a moment of silence in his honor. References to the great service rendered by Mr. Maxim to the cause of amateur movies were made in the reports of the President and the managing director.

The President's report outlined his concept of the purposes and aims of the League. It was received by the meeting with enthusiasm. Other reports showed that interest in personal filming is greatly on the increase, the membership of the League having grown by twenty five percent in the last twelve months. Again the treasurer reported that the fine record of never having had an annual operating deficit had been maintained and that an addition had been made for 1935 to the surplus funds of the League.

The new offices of the League, particularly its well equipped projection room, were the subject of much interest and favorable comment on the part of members who attended the annual meeting.

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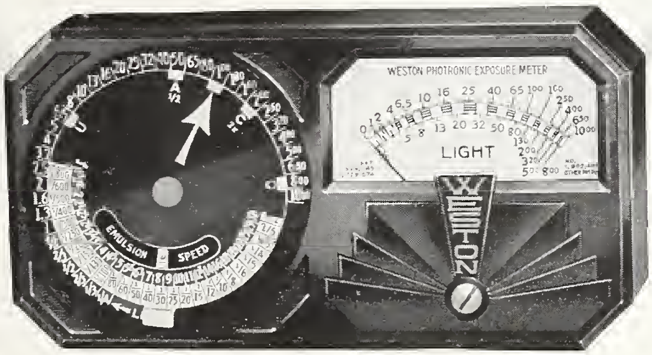

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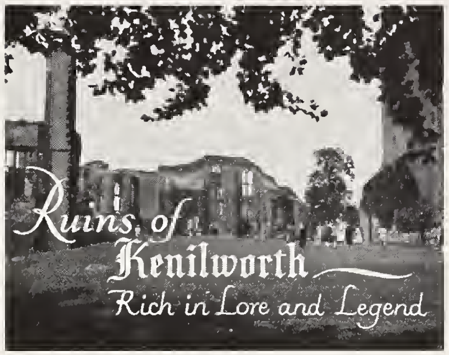

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Closeups—What filmers are doing

Unexpectedly, in the routine of the week's work, there comes along one of those utterly sincere letters about amateur filming which lift the spirit in sympathetic appreciation. Here, you feel, is the very essence of personal movie making, its strange, fascinating charm caught between the lines of informal correspondence. Always, when this happens, we have wanted to pass the fun along, share its warm humanity with others of the craft. Now, with a prayer for the magic of understanding, we are going to try it.

"I've been working on a bit of a picture," confesses Ken W. F. Cooper, ACL, from Regina, Saskatchewan. "In fact, I've got two in the making and one in prospect—no, two in prospect. One is devoted to *Our City* and I'm thinking of going out to get the first signs of spring tomorrow afternoon, weather permitting . . . I have no story in this film but am shooting a bit of everything, concentrating on each individual shot for the best angle, composition, etc. . . . This may sound a bit haphazard; maybe it's because I have such a long way to go yet.

"The second film has all been shot and remains to be edited and titled. It was my first experience of trying to direct five people who had never been in a picture before, do all the photography, carry the story in my head, remember filter factors, and set for distance and exposure. On top of that, we had only a weekend to make the picture—and four of us were 300 miles from home on location. You can bet your bottom dollar I'm going to be either director *or* cameraman only next time! . . . Naturally, I missed several connecting shots trying to carry the camera, the filters, the camera case and so on in my hands and the story in my head. At one point, I had to wait half an hour for the actors to go down a high river bank to get on the ice. It was about then I discovered that my wife, who was with them and carrying the camera case, was also carrying the roll of film. You know!

Frame from "Adventures of a Newsreel Cameraman" filmed by Medford Movie Makers

Enlargement from a circus reel by Dr. Albert N. Mueller

"One picture that I'm working on, or at least working on in my mind, is filming the action of the hands from morning till night. Going to try to register the struggling wife, opening the morning mail to find nothing but 'dunners.' Then comes the afternoon and a cable from Ireland. Sweepstake winner—you guessed it! But all registered by movements of the hands. Great possibilities, but how to film it?

"My principal weakness in filming, I believe, is my failure to take more closeups. I always put lots of them in the script (which is usually left at home) but they never seem to get on the film. I thought if I did the Hand picture mentioned above I'd get the closeup habit. My study of theatrical films (and it never ends) has brought home to me the fact that all pictures depend for story on closeups of one kind of another. My films for the most part consist of large areas with people in the distance—sort of! . . . You know, I sometimes think I ought to write an article for Movie Makers on the 'doings of a ham.' Believe me, I could tell of a few damnable things that have happened on these one man director, cameraman, script girl, electrician filming spasms of mine. But then, I think they'd make very ordinary reading matter because everybody would say, 'Well, what's he talking about? I've done the same things myself and they're nothing to boast about!'"

Movie making, like many another of the arts and sciences, will now be graced by a fraternity devoted to its advancement, with the organization of Delta Kappa Alpha, at the University of Southern California, in Los Angeles. To quote from the announcement sent out by secretary Jack W. Findlater, "The purpose of the fraternity is earnestly, sincerely and continuously to promote the study of cinematography. . . . The members feel that only through a true fraternal association can the proposed accomplishments be consummated." National standing in all representative universities is the hope and aim of the founders of Delta Kappa Alpha.

The camera robot

[Continued from page 244]

For short periods, the induction motor can be eliminated by substituting a strong electric light for the sun and keeping the shade drawn at all times.

To stop the camera robot automatically, in case of an emergency, C and D were added. However, the machine will operate without these additions, thereby simplifying the circuit for prospective builders of similar equipment.

In the sketch, C is a time limit relay, which allows ten seconds to elapse from the time the lamps light until the sequence of operations is completed. If it is not completed in this time, the time limit relay C will open circuit breaker D, killing the entire circuit. The circuit breaker locks open, so that, after the fault has been cleared, it must be closed manually before operation may be resumed.

Tests were first made for exposure on a gladiolus. The camera was set twenty four inches away from the flower. Kodachrome film (the regular outdoor type, since these experiments were made before the new indoor type was available) showed the best color when two 500 watt, T 10 lamps were used twenty seven inches from the subject, with the lens set at *f*/3.5 and the camera operated at half speed. A mottled background was used for the first tests, but it detracted from the beauty of the flower. With the lens opening at *f*/3.5, any object a short distance beyond the flower was diffused beyond recognition, so that the open room, which gave a soft black background, was used later.

For smaller subjects, such as pansies, and for super closeups of the larger flowers, the camera was set up in a titler and the two 500 watt, T 10 lamps were moved in to twelve inches from the object to be photographed. At that distance, a lens opening of *f*/5.6 at half speed was all that was necessary to bring out the best color.

On some cameras, the half speed control will not stay in place, so a small clamp was used to keep a steady pressure on the half speed button.

Flowers have a tendency to face the light, so the camera was placed in front of the window, with the lens pointing into the room. During past experiments, the camera was set parallel to the window, which caused the flowers to turn their profiles. These movements to the side were quite rapid, so that they tended to make the screen image jerky.

Following the action as it occurs when the machine is in the same position as the sketch, the next tripping cam on the control dial forces the left end of the rocker arm downward. Then the right arm, which is connected to the same rod at another point, rises, simultaneously closing contact number 1. This starts the barber pole motor which, in turn, draws the shade and holds it down until the other sequence of operations is completed. When the rocker arm, which is also attached to the seesaw, raises it above the center, the ball starts to roll. As the ball leaves contact number 2, it closes and causes relay A to close, lighting the two 500 watt lamps. The lamps remain lighted as the ball crosses the seesaw, until it reaches contact number 4. The weight of the ball against the contact opens it, releasing relay A, thereby cutting off the lights.

While the lights are on, the ball crossing the seesaw touches contact number 3 momentarily. This, in turn, operates relay B, which trips the camera, exposing one frame of film.

By the time the ball reaches contact number 4, contact number 1 is open again, allowing the curtain shade to return to its original position.

At the following operation, which will be from three to forty eight minutes later, depending on the number of cams on the control dial, the next tripping cam will force the rocker arm upward, causing the contacts to operate in the following order: 1, 4, 3 and 2. This is repeated alternately until the flower has blossomed.

Film cost is the least of one's worries when using the robot cameraman, for it usually makes a 100 foot roll last a month.

New Ten Best

[Continued from page 240]

send it to the League with the film. Should the staff of Movie Makers tentatively select a film for consideration which is unidentified by a certificate (such as one sent in during the year for service review by the League's consultants), the producer of that film will be asked, immediately following the tentative selection of his film, to complete and return the certificate form which will be submitted to him. Because of the necessity for identification, *only those films for which certificates have been received can be considered when the final selection of the Ten Best and Honorable Mention pictures is made.* It should be clearly understood, however, that neither the voluntary submission of a certificate, nor the completion of one upon the request of Movie Makers, in any way presupposes or assures in advance the final selection of the film thus certified.

October 15, 1936, will be the last day on which pictures may be submitted for consideration in the selection of this year's Ten Best. All films which have reached the office of Movie Makers by the close of business (5:00 p.m.) on that date will be regarded as possible entries in the competition. Immediately following that date, certificates will be requested by Movie Makers for all films

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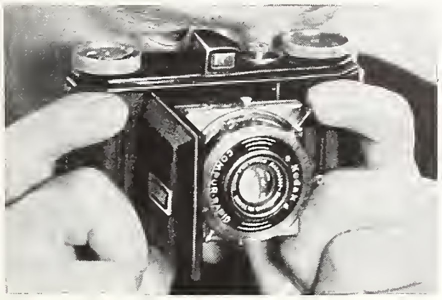

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not yet certified which have been tentatively selected by the staff for final consideration. These certificates must be returned to the office of Movie Makers by the close of business on November 5, or the film concerned cannot, of necessity, be considered for the final selections, which will be made on that date. Every reasonable effort will be made by the staff of Movie Makers to make possible the timely return of all requested certificates. For those persons whose residence is so far from New York City as to make even an exchange by air mail a doubtful factor, telegraph and cable services will be used. The request for certification to General or to Special class will be wired prepaid by Movie Makers and the producer will be asked to reply at our expense by the same medium of communication.

The announcement of the Ten Best for 1936 will be made, as usual, in the December number of the magazine. It will be complete and comprehensive, giving as always a thoughtful discussion of the subject matter, treatment and points of excellence of every film mentioned. Where a producer has brought to his film the additive factors of either sound or color, these factors will be noted and some estimate will be given of their quality or lack of it. Personal filmers should clearly understand that the staff of Movie Makers, in making its selections of the Ten Best films of each year, bases its decisions on the relative excellence of *all* the factors which each producer has seen fit to bring to his production. Good photography and imaginative treatment are, in our estimation, still the foundation stones of outstanding cinematography. The addition to these basic fundamentals either of sound or of color is in no sense to be considered as giving the film so treated an immediate and categorical advantage over all other films not so treated. As a matter of fact, the choice by a producer to bring either or both of these added factors to his production may just as easily serve to drag down his film as to build it up in the reckoning of the judges. If a motion picture is submitted in color, the producer must be prepared to have the relative quality of his color work taken into critical account, just as he expects his editing, title writing or exposures to be evaluated. Exactly the same situation exists with regard to pictures submitted with any form of sound accompaniment. The staff of Movie Makers welcomes, and is thoroughly prepared to judge, pictures involving the use of either sound or color, but it wishes to make clear that these factors will be judged just as critically as any others which go to make up the finished film. The personal movie maker who works with a simple camera, on black and white stock, stands as good a chance for success in the Ten Best as any other. Let us see some of your films this year!

Featured releases

■ *This department is for the convenience of readers in guiding them to library films announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bass Camera Co., Chicago, Ill.. will be glad to send a catalog of either silent or sound 16mm. rental films.

■ Bell & Howell Co.. Chicago, Ill.. offers sound on film rental subjects as follows: *A Study in Scarlet,* 8 reel Sherlock Holmes adventure, with Reginald Owen. June Clyde, Alan Dinehart and Anna May Wong; *Sherman Was Right.* one reel Terrytoon; *Mother's Holiday,* one reel Cameo comedy; *Death Day,* two reels, depicting the Fiesta of the Calaveras.

■ Eastman Kodak Co., Rochester, N. Y., has catalogs available listing 8mm. and 16mm. subjects.

■ Walter O. Gutlohn Inc., New York City, has sound on film subjects suitable for various types of audiences. Those especially adapted for school screening include films of music appreciation, travel, natural science, literature, foreign languages and sports.

■ J. H. Hoffberg Co., Inc., New York City, has the 16mm. sound on film subject, *Silver Lining,* starring Maureen O'Sullivan. *Murder in the Museum,* a mystery thriller, and eight separate reels of Major Hammond's World Exploration Series also are available.

■ Kodascope Libraries, Inc., New York City, will delight many a heart with their announcement, this month, of Mickey Mouse and Silly Symphony cartoons being available in 16mm. sound. Here is an opportunity to see and hear again some of the familiar subjects which previously appeared on the theatrical screen.

■ Lewis Film Service, Wichita, Kans., offers the two reel 16mm. sound on film musical comedy, *La Serenata.* A catalog of sound and silent rental films may be had on request.

■ Ernest M. Reynolds, Cleveland, Ohio, has 100 ft. 16mm. scenic subjects for sale.

Circus cinematics

[Continued from page 246]

dred feet of film will be required. As a final touch, there can be added some night shots, made on supersensitive film, showing, by the circus flares, the tent city being broken up and being removed to another location.

Most of the scenes are obviously self explanatory, and very few titles will be needed. A medium shot of a small boy pointing at a circus bill board poster makes a good introductory subtitle. If you wish, the same boy can be used as a character throughout the reel, being present in the background of various scenes. In the final scene, the boy could be shown leaving the circus ground in the afternoon.

Filming Maryland's story

[Continued from page 248]

represented. We loaded the cast into department store trucks and hauled them back and forth. We made them up on location and rehearsed all scenes in full makeup, the reason for this being that I found quite often that we photographed what the actors thought was a rehearsal, thus avoiding camera consciousness. We did most of our shooting on Sundays, because the majority of the cast came from high schools and had very little free time on week days.

Some of our night scenes were made in the daytime by using red filters. This did not prove satisfactory for all shots, especially in the case of interior scenes filmed in a pioneer cabin. We enticed the local electric power company to lend us a generating unit, and they brought it out in the woods and made the current for us. This was a splendid arrangement, except for the fact that we had two showers of rain during the production of these scenes, and the drops of water burst thirty five flood bulbs twice in thirty minutes. Most of our very exciting action shots were made at night, which unfortunately increased the hazard of accidental injury to the actors.

Managing a large cast of amateur "extras" involved many troublesome but amusing problems. For instance, we made arrangements with a local hotel for the reservation of several rooms with baths to make it possible for our cast to clean up after work. We pulled up in front of the hotel with a load of "fake" Indians one Sunday afternoon and, when the management saw these creatures painted from head to toe, out we went. There was nothing left to do but to take them around to my apartment and let them take a bath, one at a time.

Finally, the scenes were all shot and Goodman and I edited the film. We spent two hot weeks on the job but we had very little trouble. I wrote the dialog and directions for the narrative and sound effect accompaniment, which we hoped to add to the picture by post synchronization, and Morton Kuder, a young musical amateur, arranged the musical setting and background. This was made by selecting disc records carefully and fading or "mixing" from one musical passage to another.

Then, we couldn't get the sound job done the way we had planned. Finally, with the cooperation and generous aid of Alexander F. Victor, who came to our rescue in a way typical of his pioneering spirit, we got a job done that sounded as good as any theatrical film. All our sound effects, narrative and music were recorded on a 16mm. sound on film print.

Then, the great day arrived. Our picture came back; we arranged a preview, we had the "bigwigs" there, the newspapers and all else whom it concerned. Everybody of importance came. The picture was a success and is still a success. It has played to over 40,000 kids this past year and is going strong. One print has been worn out and another is on the same journey. The school board saw it, Indians and all, and notified all the principals to order its showing to all the school children of the state.

As a parting shot, I would like to say to my fellow movie makers: If you want to do something with your equipment, go ahead and do it. Don't let anybody discourage you. We made our picture with the average equipment—two cameras, one with an *f*/1.9 lens and one with

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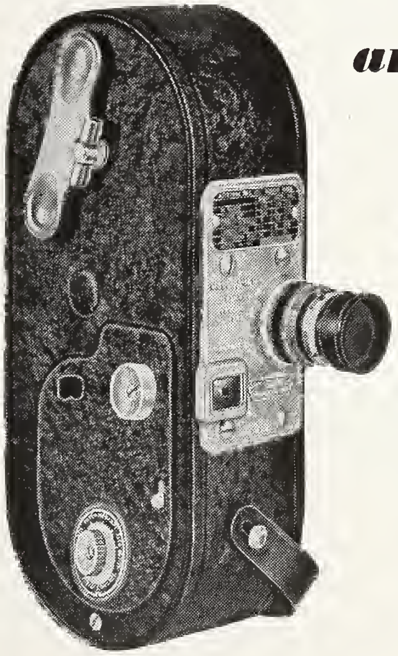

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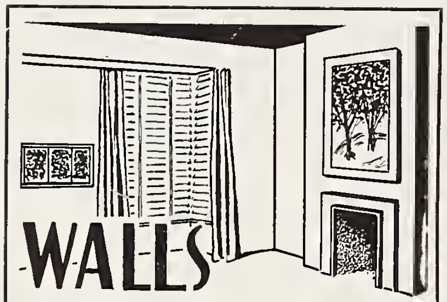

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A camp tale

[Continued from page 247]

Jack still explaining and gesturing to point out the difference, but Bill still isn't interested. Jack goes on.

20. *Closeup.* Compass pointing south.

21. *Near shot.* Tree on south side. Jack's fingers in the scene pointing out the difference.

22. *Medium shot.* The two boys. Bill throws up his hands and wanders on. Jack follows, disappointed.

23. *Near shot.* Bill and Jack sitting down. Jack is showing leaves and barks and identifying them for Bill who is still listless. He goes to sleep and Jack, laughing, kicks him awake.

24. *Medium shot.* The same scene. Bill reaches out, picks up a shrub and shows it to Jack. Jack yells:

Title 5. *"Poison ivy! Go see the Doc."*

25. *Medium shot.* Same scene but different angle. Bill starts out. Jack calls because Bill is heading in the wrong direction. Bill starts in the direction in which Jack points. Jack looks after him with a disgusted expression. He is irresolute, then starts after Bill.

26. *Medium shot.* Bill comes in the scene and turns off right. When he has gone, Jack enters and looks for him. He calls after Bill who reenters. He's wrong again. Jack leads him in right direction (left).

Title 6. *Then came the overnight hike.*

27. *Medium shot.* Front of cook tent. The cook is issuing rations and the boys have him almost distracted. Bill and Jack get theirs.

28. *Medium shot.* In front of tent as in 2. Jack's neat pack and Bill's bulgy looking affair are on the ground. Jack and Bill enter. Jack points to pack.

29. *Semi closeup.* Jack rebuilds Bill's pack.

30. *Semi long shot.* Camp street, with boys leaving on the hike.

31. *Medium and near shots.* These can be a series of scenes on the march. No definite suggestion can be offered for the action. The boys should note the best locations in advance.

32. *Medium shot.* The camp in the woods. The boys are getting breakfast, etc.

33. *Near shot.* Bill and Jack over their fire. Bill drops his bacon in the fire. Jack shares his with Bill.

34. *Medium shot.* Camp activities. (Baseball or whatever is available.) Jack in the foreground wants Bill to play. Bill declines. Legs are too tired. He wanders out.

35. *Medium shot.* The woods. Bill walks through.

36. *Near shot.* Another woods scene. Bill enters and lies down.

37. *Medium shot.* At the temporary camp. The game breaks up and the boys wander to the tents.

38. *Near shot.* Back to 36. Bill still sleeping.

39. *Medium shot.* Boys at the overnight camp ready for a swim.

40. *Long shot.* Boys swimming. (Close views of fancy dives, pranks or emphasis on care taken to prevent drowning.)

41. *Semi long shot.* Scenic view with setting sun. (Merely to denote time.)

42. *Near shot.* Same as 38. Bill wakes, looks at sky. It's getting dark. He starts to retrace his steps.

43. *Near shot.* Jack in his tent looking for Bill. He is worried. He thinks.

44. *Medium shot.* Insert here the duplicate of 26, in which Bill takes the wrong turn.

45. *Near shot.* Back to 43. Jack worried. Counselor enters. Jack tells him. The counselor is interested. They exit.

46. *Closeup.* The bugler sounding assembly.

47. *Semi long shot.* The boys come running.

48. *Medium shot.* The counselor telling the boys that Bill is probably lost. His gestures indicate that he wants them to spread out through the woods and locate Bill. All start out.

49. *Medium shot.* Bill in a panic passes through woods scene. He looks at a trunk of a tree but cannot remember which is north and which south.

50. *Near shot.* Jack goes through scene, looking for Bill.

51. *Near shot.* Bill stumbling along in desperation.

52. *Medium shot.* Other searcher passes through scene.

53. *Near shot.* Bill stumbles and falls. He tries to get up but his ankle is wrenched.

54. *Near shot.* Jack picks up Bill's trail. He hurries on.

55. *Near shot.* Bill hobbles a couple of steps and collapses. He is desperate.

56. *Medium shot.* Jack tearing through scene.

57. *Medium shot.* Back to 55. Jack enters. Bill never was so glad to see anybody in his life. Jack yells.

58. *Medium shot.* Two boys hear the call. They hurry out.

59. *Near shot.* Back to 57. Jack gives Bill first aid.

60. *Medium shot.* The two boys now joined by two others. They hurry through.

61. *Medium shot.* The boys enter and rush over to Jack and Bill. They arrange to carry Bill.

62. *Semi long shot.* The temporary camp, boys returning.

63. *Semi closeup.* Bill being brought in. Much rejoicing.

Title 7. *And a month later—*

64. *Medium shot.* The woods. Jack and Bill enter. Jack in lead. Bill now alert and like the others. Bill starts to exit in one direction. Jack tells him to take the opposite road. Bill shakes his head, pointing to a tree trunk. He's right. Jack laughs, nods assent. Boys go off, arms over each other's shoulders.

65. *Semi closeup.* Bugler calling mess.

66. *Medium shot.* Exterior of dining room. Boys swarm in. Bill is among the first.

67. *Semi closeup.* Bill and Jack at the table, Bill doing his share of eating. He turns to Jack and says:

Title 8. *"There's something in this camp thing, after all."*

67. *Continued.* Bill resumes eating ravenously. Jack slaps Bill on the back. Bill chokes. He slaps Jack's back. Jack spills his coffee. Both laugh. *Fade out.*

Cameras and canoes

[Continued from page 241]

exception to this rule is the green of trees and grass, which registers lighter with red filters. This is because the green of plants contains a great amount of red light to which the eye is not sensitive. White or gray objects are not affected by color filters. Of course, if you use a natural color film, be sure to use flat lighting, as most shadows in color films are dark and unnatural.

Perhaps you are contemplating a canoe camping vacation. If you are, you probably are weighing every piece of equipment and measuring the space each takes. Of course, you cannot sacrifice your movie equipment, but you will want to eliminate everything that you can. You will be able to get along without the carrying case and, if you hold the camera carefully, your tripod also. Special devices can be left at home, but take your exposure meter and filters, for these are essential to good results. A five foot length of thin brass chain makes a good substitute for a tripod, for, when one end is fastened to the camera and the other end is placed under your foot, a slight upward pull keeps the camera quite steady.

Whether you are contemplating all the comforts of a permanent camp or the bare needs of a temporary shelter on a long wilderness cruise, be sure to include shots of the many bits of gear every camper prizes. Perhaps it is a combined food box and table, or it might be a special, watertight container for food or cartridges, or again a special type of sleeping bag which also folds up into a duffle bag. Many pride themselves on their method of carrying equipment and duffle on portages, and scenes of such

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technique are just as important as scenes of your camp life. They should have a select place in your finished film. Those who plan to fish along the way will want some footage of this pleasant pastime. If you are not fortunate enough to land a big one when the camera is handy, you can create the same impression by taking all the necessary scenes to establish the sport and later splicing in a shot of a whole fish broiling over the hot ashes of a camp fire. This can be taken near your home at any convenient time, and yet the effect is perfect. And, talking about cooking, why not start this interesting sequence with a preparation of the fire? If you wish your audience to voice their sensations, use bacon as bait—not on a hook but on a dry, hot skillet. Use eight frames a second and stop the camera at short intervals to hasten the cooking.

If there are two boats on the cruise, the best method of reproducing the sensation of paddling down stream is to take your shots from the rear canoe with the other in the foreground. This is much better than to take it from the first canoe with the other in its wake. You probably have heard that every scene should have action but, if you follow this implicitly, you will create a wrong impression of camp life. Many a joyful hour is spent in the quiet siestas toward eventide, when one mulls over the events of the day. These rest periods allow for individual expression of pictorial effects and they accentuate the action that follows. In keeping with this idea, you might well include a flare for night movies of the camp fire, but be sure to hide the direct rays of the light by placing one of the party so as to protect the lens.

A good closing shot for a camping film might be taking down the tent, packing the equipment or loading your car for the trip home. If you choose the tent scene, do not take this at sunset, for no experienced camper breaks camp at this hour; he at least waits until morning.

Amateur clubs

[Continued from page 249]

Cinemats entertain ■ Members of the Mount Kisco Cinemats, in Westchester County, N. Y., were hosts to the membership of the Larchmont Cinema Club and of the Metropolitan Motion Picture Club at a recent gala meeting held at the Methodist Episcopal Church in Mount Kisco. Featured on the program for the evening was a discussion of filming problems by Herbert H. Johnson, of the Eastman Kodak Company, in Rochester, and the screening by Mr. Johnson of *The World's People*, a Ten Best, post recorded 16mm. sound film produced by him and Edmund Zacher, II, ACL. Mr. Zacher enlarged the geographic scope of the gathering by motoring down from Hartford with his 1935 award winner, *A Christmas at Home*, and the complete double turntable disc sound equipment for its presentation. At an earlier meeting, Kenneth F. Space, ACL, discussed lighting.

New in Elmira ■ Recently organized, the Elmira (N. Y.) Camera Club will serve the interests of both still and cine photographers in that area, according to a dispatch from Hubert Walker, publicity secretary. The officers are G. Wells Crandall, president; Wilbur R. Simmons, vicepresident in charge of the still section; Dr. Charles L. Stevens, ACL, vicepresident in charge of the cine section; Irving Skeels, treasurer; Walter Lindell, secretary. The club meets, in the Y. M. C. A., for a program of general interest on the first Friday of each month and on the third Fridays for programs devoted alternately to still and cine matters.

'Phone club dines ■ At the recent annual dinner of The Telephone Camera Club of Manhattan, ACL, the Movie Group presented the entertainment with a screening of *Argosy of the Liunis*, a four reel color film of Europe, by Frank Liuni, ACL, and of *Pinch Hitter*, interclub prize winner by Charles J. Carbonaro, ACL, of New York's Metropolitan Motion Picture Club. At an earlier gathering limited to the Movie Group, Phil O'Toole and Mr. Liuni stressed the importance of scenarization in plot filming, presenting their ideas in the form of a dialog between them. It is planned to handle other subjects of importance in this novel way at later meetings.

First run films ■ A meeting devoted primarily to screening films made by members who have not yet exhibited before the club was a recent feature of the Metropolitan Motion Picture Club, in New York City, according to Annette C. Decker, ACL, publicity secretary. *Army and Navy Game*, on 8mm., by Lawrence P. Arcuri; *Haiti*, in Kodachrome, by Louise C. Schumacher, ACL; *Scenes from American History*, by Edith J. Schroeder, ACL, were among the films thus brought to light. Rounding out the program, other members presented *Mississauga Canoe Trip*, by F. D. Koehler, jr., ACL; *Making Canadian Homespun*, by Duncan MacD. Little, ACL; *Indoor Kodachrome Tests*, by Charles J. Carbonaro, ACL.

Movies in Medford ■ In Oregon, the Medford Movie Makers, working under the leadership of W. Bernard Roberts, ACL, have completed *The Adventures of a Newsreel Cameraman*, a novel com-

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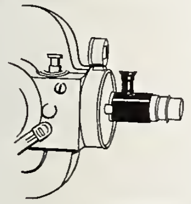

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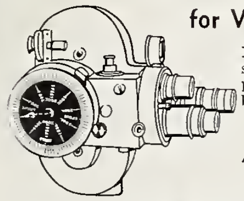

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pilation of sequences, each one having been produced by two persons in the club and then the whole having been edited together as the filming work of a single ambitious newsreel man. At a late gala meeting of this group, *Birds of a Feather, Another Day* and *Not One Word*, from the League's Club Library, were screened on a program with *Our Scenic Wonderland*, by H. D. Kem, of the Medford club.

Sutton sees films ■ Late meetings of the Sutton and District Movie Makers have featured a screening and discussion of members' films and programs of films from the Bolton Amateur Cine Association, Manchester Film Society, and the Beckenham Cine Society. George H. Sewell discussed and demonstrated the possibilities of Dufaycolor filming on an earlier program., according to the report of Desmond Sheen, ACL, hon. secretary. Movie makers in the district interested in the club should get in touch with Mr. Sheen at 32 Brighton Road, Sutton, Surrey.

Austria elects ■ At a recent general meeting, new officers were chosen by the Klub der Kino-Amateure Osterreichs, ACL, as follows: Johann Hengl, president; Josef Deimel, vicepresident; Josef Schlechtleitner, treasurer; Hans Vizek, assistant treasurer; Marjan V. Hocevar, secretary; Egmont Groh, assistant secretary. Serving with them on the board of directors will be Hans Figura, Hans Innerhofer, Fritz Kindinger and Karl Schneeweiss. Auditors for the club will be Alois K. Gaisch and Hans Skorpil. The Austrian club has recently moved to new and larger quarters, located strategically in the center of the cinema district of Vienna.

Yellowstone shots

[Continued from page 243]

film is being used—for they will include the white river and waterfall, the variegated sides of the canyon, the green fringe of surrounding forest and the blue sky overhead. By means of a telephoto lens, sectional views of the steep canyon sides unbelievably carved by the master sculptors, frost and erosion, may be made from Inspiration Point on the north rim or from Artist Point across the chasm.

The road over Sylvan Pass is another inexhaustible source of color shots. For most of the way, this road passes through a vividly colored canyon, and it is one of the most amazing regions in the West. A wondrous variety of red rock formations, defying description, will keep one's camera clicking, and a movie maker, if he is driving his own car, will want to devise some way to fasten the

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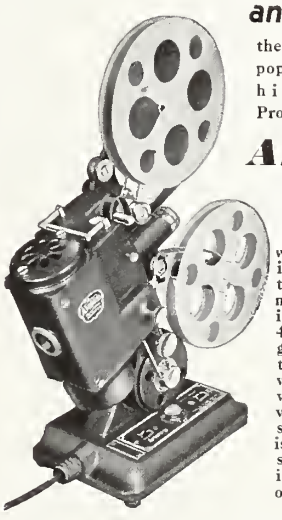

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camera to the car for traveling camera effects. Smooth shots can be had only if the camera is either on a tripod in the car or is fastened to the car. The canyon is extremely narrow and, because of this, forward traveling shots are particularly effective; the canyon sides will seem to advance steadily, until they file past the margins of the screen. An interesting sequence could commence with a traveling shot approaching the entrance to the canyon and continue until the car was well within it. (Part of a fender or the front hood of the car should show in this scene.) Then a series of traveling camera shots would follow, showing unusually beautiful stretches of the road. They should not be longer than fifteen seconds each and, if possible, they should dissolve one into another, while the speed of the car should be approximately the same in all of them. These shots may be assembled in such a way that the longest scene will come first, then the next longest and so on. Next would come a scene of the car traveling at the same speed and coming to a gradual stop at a chosen place. After this, the picture would be continued with a series of shots made with the camera mounted on a tripod. These will show the occupants of the car getting out for a picnic, for a drink of water or to examine some particular feature of the canyon. It is at this point in the film that a reasonable number of random shots—studies of the formations and views of the canyon walls—may be inserted. "Panoraming" in such a confined place is definitely taboo and, in any case, short shots made from a number of different viewpoints will be very much more effective. Then would come a medium long shot of the party getting back into the car and driving off: this would leave out the cameraman, of course, but no cameraman worth his salt insists on being in every picture, anyhow. Scenes made on a tripod would follow, to show the car threading its way along the road at points in the canyon chosen for scenic worth. Ultimately, the car would emerge from the red walls and would pass the camera for a fade out to end the sequence.

The geysers are probably Yellowstone's most difficult, yet best, cine subjects. While there are more than 3,000 geysers and hot springs, but forty five of them are sufficiently prominent to warrant cine studies, although many others offer interesting features. It is better to do full justice to a few of the more impressive phenomena than to scatter interest in an attempt to film mere numbers. Except at the Norris Basin, geyser vents are encircled by cones or mounds of white siliceous sinter, which have been formed in beautiful shapes and which are good photographic subjects in themselves. Giant, Splendid, Castle, Grand, Giantess, Lion, Beehive and Old Faithful are unfailing sources of wonderment, and a good record certainly should be made of each. No attempt should be made to obtain all needed footage during one eruption. Set up the camera when the first rumblings are heard and make telephoto closeups of the cone. The rumbling will be followed by spasmodic outbursts of steam and water ten to twenty feet high, and these may be shot by telephoto also. Swing the wide angle lens quickly into position to allow for the rise of the steaming pillar of water. It will mount higher and higher until it seems to tower hundreds of feet in the air. There will be steeple shaped jets which will rise higher than the main pillar. The camera should be back far enough to include everything and to allow for a small band of sky above the stream. Human beings in the picture will accentuate height, and a deep red filter will kill the blue of the sky and will accentuate the whiteness of the steam and water. This whiteness will be purest when the sun is directly behind the camera. Filters are not as essential when the geyser is side or back lighted. A low camera viewpoint will throw more of the length of the stream against the sky, but the footage showing the geyser in full eruption must be broken up into shots from various positions. It is this shift from viewpoint to viewpoint which makes prolonged action studies interesting. The wide angle shots can be interspersed with telephoto closeups of the cone and the base of the column of water, with closeups of the faces of persons watching the spectacle and with beautifully highlighted shots of the great clouds of steam. After this will come the gradual decline and cessation of the geyser stream.

News of the industry

[Continued from page 245]

it is possible to note single frames with precision for making trick pictures, lap dissolves and the like, has now been adapted to the Victor camera by Arthur Wolff, 159 North State St., Chicago, Ill.

Projector cases ■ Two types of substantial and well made carrying cases, designed for use with the new Model E Kodascope, have been introduced by Motion Picture Screen & Accessories Company, 526 West 26th Street, New York City. These two types are the De Luxe and Regular models. In the former, special attention is given to the protection of the optical system of the projector, which is held always in an upright position. Further, in this case, the top and one side open out, giving full access to the machine and enabling projection to proceed without removing it from the case. The Regular case protects the machine in the same way but necessitates its removal from the case for projection. This is done from the

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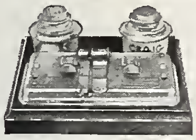

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side and not from the top. Both cases are strongly made, carefully lined and provided with wear resisting covering and nickel fittings.

Film preserver ■ Vaporate is the latest development of a type of film treatment which has been used successfully for some time in the professional film field. It is claimed that, when finished film is treated by this process, it is rendered impervious to moisture and fumes and is hardened to resist wear and scratching. The film is subjected to treatment in a pressure chamber without removal from the reel. Investigation reveals that many prominent film libraries make regular use of this process to protect their films against the wear and tear of handling. The Vaporate service is marketed entirely through dealers.

Anniversary ■ The month of April was the first milestone for Nu-Art Filmco, of 145 West 45th Street, New York City, as it was in April, 1935, that this firm first entered the 16mm. sound on film field. According to G. W. Hedwig, president, the year's business indicates that the demand for good sound on film subjects is continually growing. It was in response to this that the company has released the 16mm. sound feature, *Beyond Bengal*, for which many contracts are now pending.

Keystone items ■ A new series of 16mm. projector models, immediately available, has been announced by the Keystone Company, 288 A Street, Boston, Mass. These are as follows: the Model A-81 projector, with 750 watt lamp, $f/1.6$ projection lens, die cast construction, forward and reverse film movement, fast rewind, pilot light, framer, chromium carrying handle, improved ventilation, gear controlled tilt and other important features, which is to sell for $64.50; the Model A-75 projector, with 500 watt lamp, which has all these features except reverse drive and pilot light and sells for approximately fifty dollars; the Model A-72, with 300 watt lamp, selling for ten dollars less. The firm has also announced a new Pocket Titler which, it is claimed, can be used in all 8 and 16mm. cameras with $f/3.5$ or $f/2.7$ lenses. This device screws on the lens sunshade in use and is supplied with a package of blank title cards and mask.

Cement ■ A new film cement with the expressive name, Kin-O-Stik, has been announced by Kin-O-Lux, Inc., its makers, at 105 West 40th Street, New York City. The formula for the new cement is the product of the research of Albert Teitel, well known laboratory film chemist.

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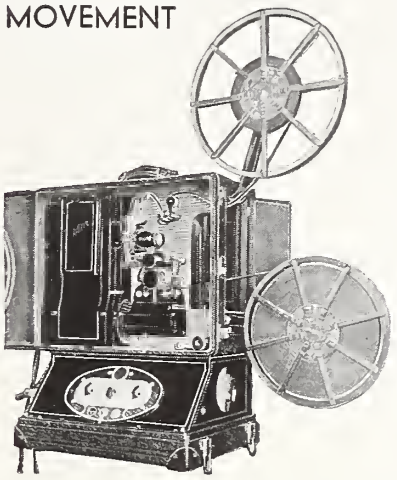

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Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
  National Camera Exchange, 5 S. 5th St.

(Continued on page 268)

Practical films

Reporting use of personal films in serious fields

■ During the past winter, Edwin Schwarz, ACL, of New York City, filmed the sports and social activities at the annual Winter Carnival at Dartmouth College in Hanover, N. H. The beautiful film record of down mountain ski racing, skiing weekend trips, skating and other winter sports and campus events has been edited with material previously filmed and is being released by the Dartmouth Alumni Newsreels, under the direction of Sidney C. Hayward, ACL. In this picture, Mr. Schwarz has overcome the difficulties usually met with in filming a New England winter and has produced clear cut, contrasty pictures of great beauty. Intelligent handling of camera angles and sequencing adds to the film's merit.

■ The Bell & Howell Company reports that among the prominent lecturers using 16mm. film and projection as a part of their programs are Lt. Commander George Noville, who took over 64,000 feet of 16mm. film on the recent Byrd Expedition to the Antarctic; Capt. Irving Johnson, who made a trip around the world in a ninety foot schooner; Capt. John Craig, who has visited thirty nine countries in the past six years; Richard Finnie, who is presenting a lecture, *Wandering Through French Canada*. Recent advances in the 16mm. projection field have solved the lecturer's motion picture problem.

■ *Riding Skyward*, a historical survey of the progress of vertical transport from 1830 to the present day, is the latest successful publicity film to be released by the Otis Elevator Company, in New York City. Planned and produced by Sidney Otis, ACL, and photographed by Robert Muller, this new two reeler is an able and interesting document which shows clearly how developments in elevator design and operation have kept pace with advances in building construction. Many types of old elevator equipment are shown, some in strikingly effective models constructed by Mr. Otis. Others, such as the almost archaic steam freight hoist installed in 1866 (still in daily use), are shown in actual operation. The film is climaxed with a detailed presentation of the Otis automatic Signal Control elevator, latest refinement in the history of this fascinating subject. This production, as well as more than a dozen others, is offered on free loan through application to the Publicity Division, Otis Elevator Company, 260 Eleventh Avenue, New York City.

■ To E. M. Barnard, ACL, of Arkansas City, Kans., has come the opportunity of filming a 16mm. picture of civic and historical importance. He made the most of his good luck and produced *The Making of a President*, a one reel film document of the operation of the Landon For President Committee, which shows how the committee functions, introduces its personnel and includes a very fine cine study of Governor Alf Landon at his desk at the State Capitol of Kansas. The interior scenes are well lighted and the whole picture is concise and effective. A print has been supplied to the League's Club Film Library. Mr. Barnard is planning to make a film record of the Republican National Convention at Cleveland.

■ Duncan MacD. Little, ACL, and Berton J. Delmhorst, ACL, of New York City, made a complete motion picture record of the maneuvers of the Third Battalion Fleet Reserve of the Marine Corps, which were conducted last fall off the south shore of Long Island. The finished film, running two reels 16mm., has been screened for the entire Battalion.

Mrs. Andre LaVarre filming exploration in British Guiana

Andre LaVarre

HIGH SPEED—WIDE ANGLE

Producing pictures sharp to the edge of the frame, Wollensak Cine Velostigmat f2.7 gives speed enough for 95% of all possible shots — black and white or colors. Covers angle 2/3 greater than customary lenses. In iris diaphragm barrel, 15mm. focus, $27.50.

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THE **BERNDT-MAURER** CORP.
117 EAST 24TH STREET • NEW YORK CITY

(*Continued from page 266*)

St. Paul: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.
Winona: Harry Peiewert Photo Supplies, 69 E. 4th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Butte: Al's Photo Shop, 42 N. Main St.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 1618 Harney St.
J. G. Kretschmer & Co.. 1617 Harney St.
Tecumseh: Gamble Store Agency.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman's, 384 Springfield Ave.
Trenton: Dwver Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
Stewart's School Films, 143 Hunter Ave.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc.. 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Anton's Camera Shop, 137½ E. 56th St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St.. nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Ahe Cohen's Camera Exchange. 120 Fulton St.
COLUMBUS PHOTO SUPPLY, 146 Columbus Ave.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand. Times Bldg.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Garden Camera Exchange, 800 Eighth Ave.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
LUMA CAMERA SERVICE, INC., 330 W. 42nd St.
MacLean-Gordon Co.. Inc., 10 W. 33rd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Ruby's Exchange, 9-11 Delancey St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey. 247 Genesee St.
Edwin A. Hahn, 223 Columbia St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Groshan Graphic Arts Co., 221-2nd St., N.E.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio. Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Acme Cine Service, 2057 Cummings Ave.
Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., cor. 4th and Boston

OREGON

Lakeview: Getty's Photo Studio, 536 G. St.. So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St
M. & H. Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange. 306 Diamond St.
Reading: Alton E. Bowers, 416 N. 5th St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros.. 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc.. 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co.. 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell
Phillips: Jakoubek's Photo Shop.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.

Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez. Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: **M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.**
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbins (Suburban) Ltd., 131 High St., Putney.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman. Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Et. Hesperiankatu 12A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
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Johannesburg: City Photo House, 52 Kerk St.
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Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

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Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

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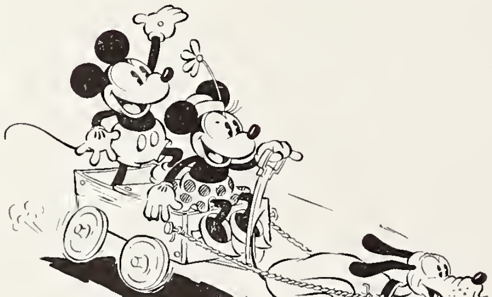

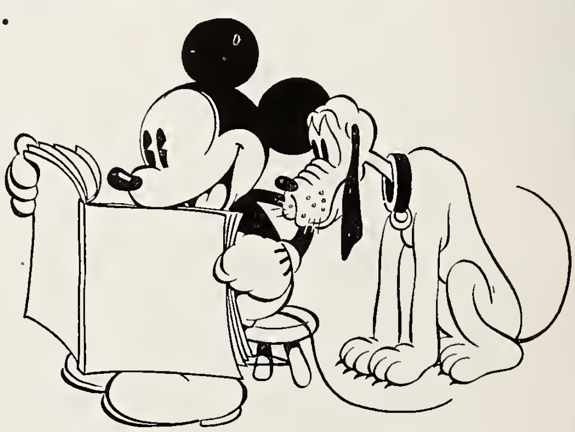

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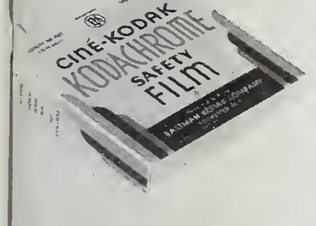

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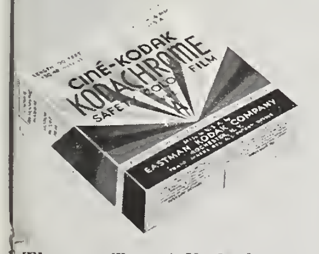

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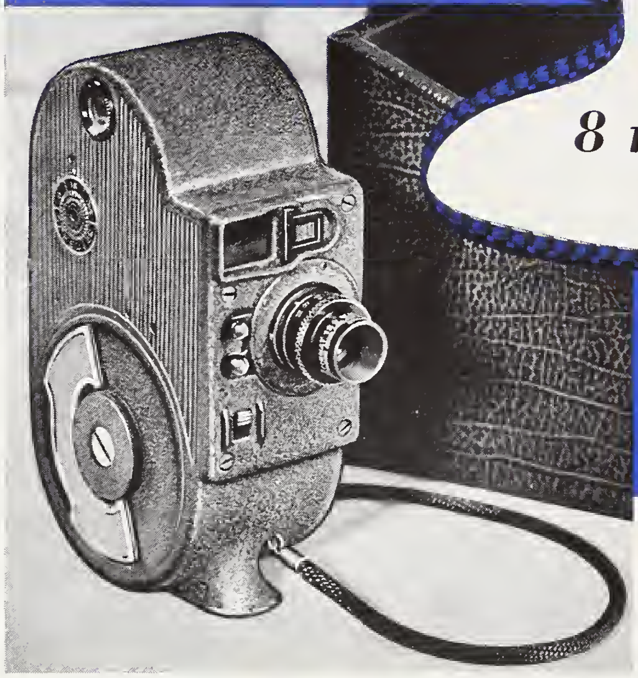

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

JULY, 1936

25c

What membership in the Amateur Cinema League will bring you—

1. **MOVIE MAKERS** ■ Membership includes a subscription to Movie Makers, a monthly magazine covering every phase of amateur filming, including timely articles on all aspects of movie making technique. Not only does the magazine keep you abreast of all new developments in method and equipment, but it includes in each number several articles designed especially to introduce the new enthusiast into the craft—articles which will present fundamentals of camera operation intelligibly and enjoyably.
2. **TECHNICAL CONSULTING SERVICE** ■ The League's technical consultant will answer any member's question by letter, by 'phone or in person if the member calls. He offers advice and help on exposure, focusing, use of filters, editing, titling or interior lighting—in fact, the whole range of technical problems. This service is not syndicated, but actually individual; the consultant will give full attention to any member's problem, sending him a full discussion, illustrated with diagrams, examples, etc., if necessary.
3. **CONTINUITY AND PHOTOPLAY SERVICE** ■ The continuity consultant will aid you in planning specific films by making continuity and treatment suggestions indicating how to get the most effective results not only in the reel as a whole, but in specific shots. In addition to this aid in "planning in advance," he is always glad to make suggestions for future work. He will give specific suggestions for writing scenarios, he will prepare title wordings and outline new subjects for filming. Detailed service in planning business, professional and industrial pictures is offered.
4. **CLUB SERVICE** ■ Should you wish to organize an amateur motion picture club—either a group to produce photoplays or a club of amateur cameramen—the club department can aid you. Complete organization material, based on the experience of hundreds of clubs, is available. Program suggestions are offered and A CLUB FILM LIBRARY, made up of outstanding films produced by clubs, is circulated among clubs without charge.
5. **FILM REVIEW SERVICE** ■ You may send in any films you wish for criticism and suggestions by the technical and continuity consultants. The member will receive a detailed letter about each picture screened. Editing and titling suggestions are offered and advice on technique for the future is given.
6. **BULLETINS** ■ Booklets and bulletins, covering general and specific subjects on which the movie maker wants up to date, detailed information, are supplied to members without charge. They are issued periodically and give the latest information on the subject that they cover. More important ones are printed as bound booklets and others are clearly and legibly mimeographed. Members, on request, will be sent any or all bulletins that are in print. A member may at any time request that all future bulletins be sent to him as they are published during the period of his membership. These booklets and bulletins can be secured only through membership in the Amateur Cinema League and are not otherwise available. Printed bulletins now current are:

   Cine travel plans—32 pages
   Scenarios ready to film—32 pages
   Titling technique—32 pages

   In addition to the bulletins, numerous service sheets are available to meet needs for specific information. These are not sent automatically to members but are used by the service departments to fill some of the special requirements for information that come from members.
7. **SPECIAL SERVICES** ■ These two important special fields are available through the PLOT SERVICE CHART and the TITLE SERVICE CHART by means of which members may secure individually prepared plots and detailed aid in title making. These charts are supplied, on request, to members only.
8. **EQUIPMENT SERVICE** ■ New equipment is being announced constantly and this service will help you to keep your own equipment modernized without duplication of purchases. The League aids members in locating new equipment, in making out filming itineraries and equipment lists and in securing specific films to fill in reels. It will also lend its services to facilitate relations between members and manufacturers and dealers, if this should be requested, and will secure information for its members on conditions affecting movie making in foreign countries.
9. **MAKING BETTER MOVIES** ■ A 241 page book on amateur movie making is sent to every member. Written in clear, non technical language, this book gives directions for every process, every device and every trick in movie making that you will be likely to use. It tells you, step by step, just what to do and how to do it to get the best results from your camera and projector. It is well illustrated.
10. **FILM EXCHANGE** ■ This service on a loan basis is made possible through League membership. As a member, you may list your films in the Film Exchange for temporary loan among members and receive in return the listing, by your fellow members, of hundreds of other reels, available directly from member to member. Available only to members who list films for exchange.
11. **PUBLIC RELATIONS** ■ The League has been able to accomplish much for amateur movie makers. It secured national legislation abolishing the former duty on amateur films, under regulations that are very fair to amateurs. It has aided in opening previously closed filming areas to amateur cine cameras. Further, the League acts as a clearing house for all ideas about movie making and announces these monthly in Movie Makers, which is written by amateurs and for amateurs. Amateur needs are told to the industry that provides equipment, and often new and necessary articles have been developed at the instance of the Amateur Cinema League.

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- Kodak Reversal Sound on Film, Regular Panchromatic, per 100 feet, $6.00.
- Kodachrome Sound on Film, per 100 feet, $9.00. 16 mm. Sound on Film Negative, does not include developing, per 100 feet, $3.50
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- Bell & Howell Friction Panoram and Tilting Top Tripod at $27.50.

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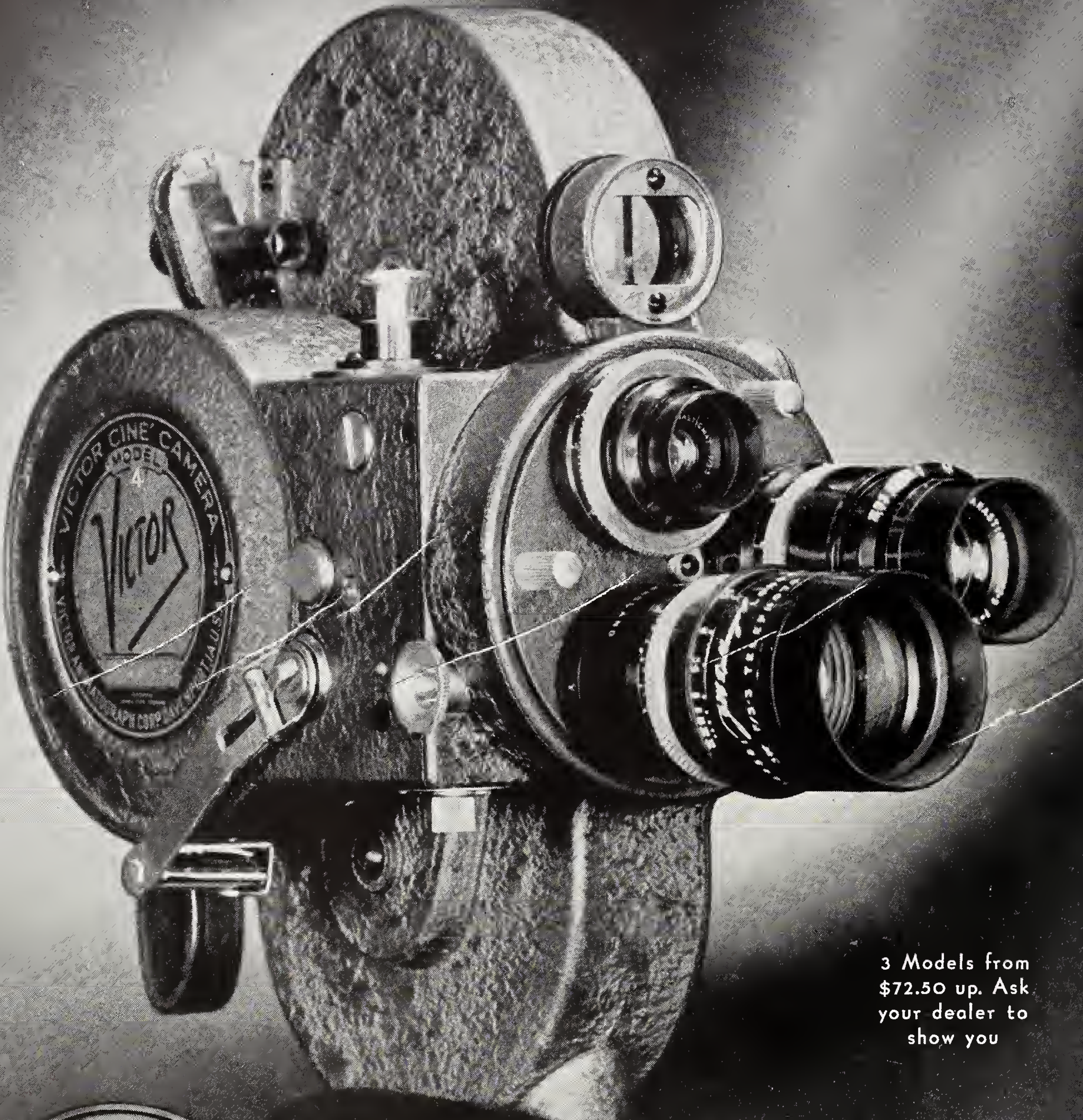

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MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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Advertising rates on application. Forms close on 10th of preceding month.

Closeups—What filmers are doing

During his years in Tirupattur. Southern India, Dr. D. Olof Sendel, busy practitioner of the Swedish Mission Hospital there, seems still to have found time for pretty active movie making. He goes back to Sweden on furlough with more than 5000 feet of 16mm. film on the ways of the country he was serving. Three big reels are straight travelog. A second subject presents a topical story of the 120 bed hospital and its work, while still a third traces, in dramatic reconstruction, the life story of a Hindu boy who grows up to be a great leader of his people. Dr. Sendel invites correspondence from other active movie makers, in care of League headquarters.

Out in Fort Morgan, Colo., the Elks lodge secured a red pig (named Roscoe), put it in a purple and white crate, and the secretary of the lodge delivered it to the first on a list of twenty members. Before he could pass it on to number two, he had to turn in a new member or the reinstated application of an old one. In the meantime, he had to feed and care for Roscoe. It was some fun! The City Superintendent took the rap first, hurried Roscoe on to the County Judge, who in turn parked him with the Mayor, etc., etc. During all these goings on, H. B. Bloedorn, ACL, was recording on imperishable celluloid the discomfiture of the city's great, so that when the thing was all over the lodge had a good laugh at its own expense. It also had twenty new members.

William Butterworth, ACL, one time president of the United States Chamber of Commerce, Washington, D. C., and chairman of the board of Deere and Company, manufacturers of farm implements, in Moline, Ill., died from heart attack in Absecon, N. J., on May 31. He was seventy one years old. Scarcely two weeks before his sudden passing—which occurred while he was strolling on a golf course with a group of other industrial leaders — Mr. Butterworth had stopped in at the League's new quarters to have a look around and to renew his acquaintanceship with the staff. We like to remember this casual, friendly visit and the downright sincerity of his interest in all that the League and amateur movies were doing. Mr. Butterworth's last request for League service was concerning a plan for a film for his local council of Boy Scouts.

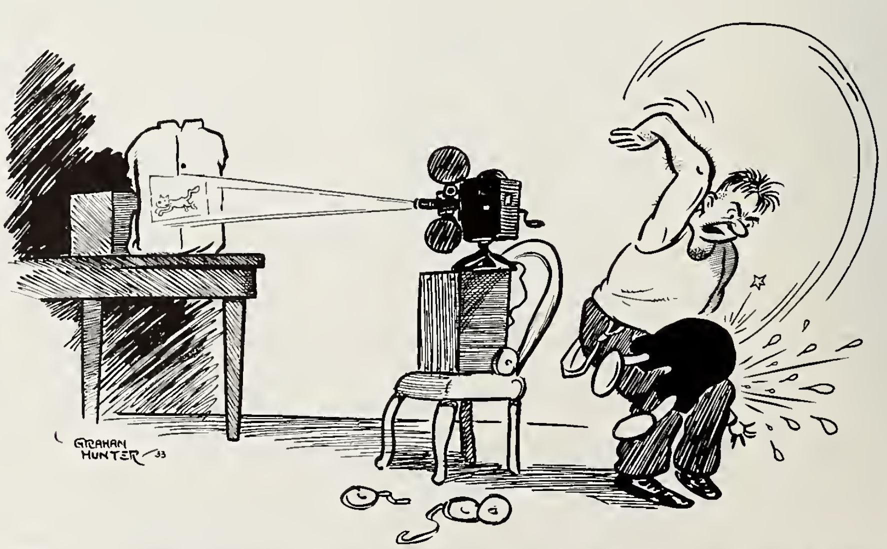
Stephen F. Voorhees, ACL, President of the Amateur Cinema League, Inc., and of the American Institute of Architects, recently has been appointed chairman of the board of design for the coming World's Fair of 1939, in New York City, according to the announcement of Grover A. Whalen, president of the World's Fair Corporation. Serving with Mr. Voorhees in this important work are Gilmore D. Clarke, William A. Delano, Jay N. Downer, Robert D. Kohn, Walter D. Teague and Richmond H. Shreve. The board, which must submit its preliminary report to the directors of the fair by September 1, will be clothed with broad discretionary powers in the selection of the main architectural theme of the exposition, limitation of heights and areas of structures and such matters as the use of artificial lighting and color. In character with his position as the League's President and with his own firm belief in the value of personally made motion pictures, Mr. Voorhees has presented for study at one of the first meetings of his board members a pair of 16mm. amateur films on the late Century of Progress. They were *Century of Progress*, 400 feet of Kodacolor, by Edmund Zacher, II, ACL, and *The World's People*, 800 feet of black and white, by Herbert H. Johnson and Mr. Zacher.

Sometime in September, the brother and sister in law of Paul A. Leeb, ACL, in Milwaukee, will be coming back from Europe. Mr. Leeb is anxious to have the couple's arrival in New York filmed on 8mm. stock and will be glad to supply the film or pay for it in advance. Sharpshooters on 8mm. who are interested in trying their hands at the job can get in touch with Mr. Leeb in care of the League offices.

Mrs. LeRoy S. Galvin, ACL, a director of the Amateur Cinema League, recently has been elected an Associate of the Royal Photographic Society, of Great Britain, an honor which Movie Makers is sincerely happy to record. One of the earliest of 16mm. movie makers, Mrs. Galvin soon distinguished herself in this new field of personal cinematography by her experiments in multiple exposure work with Kodacolor. In latter years, serious but unusually imaginative still photography has won over her talents and brought to her this deserved honor.

The Saint-Maurice River Canoe Race in Quebec, Canada, which commemorates the grim competition of the *voyageurs* of the early fur traders to reach the market first with the season's catch, has become an annual fixture. Now the Syndicat d'Initiative of the Vallée du Saint-Maurice has determined that the races offer such excellent cine material that a contest should be held and prizes offered for the best film of the event when it is next held in August. Accordingly, it has been decided to offer awards for the best film made by a Canadian, the best film made by an American and the best film submitted regardless of the nationality of the maker. Kermit Roosevelt has consented to serve as a judge. Detailed information about the contest can be obtained from Duncan MacD. Little, ACL, by addressing him in care of Movie Makers.

When you go to England this summer, and are looking for attractive color material, take a tip from Alan Moorhouse, ACL, of Toronto, as exemplified in his charming reel, *A Village by the Sea*. Running 400 feet of delightful Kodachrome, it tells a simple genre story of village life in Cornwall, down at the southwest tip of England. Here, streets and structures date from centuries back and the country folk still wrest their simple living from fish trawling in the cold, gray Channel waters. Mr. Moorhouse has caught a deal of this physical and spiritual color in his one reel film.



"Wad'yuh mean, keepin' Poppa hunting for his dress shirt when he's already late for the opera!!!"

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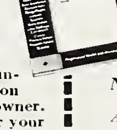

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Practical films

Reporting use of personal films in serious fields

■ According to a recent report in *The Crows Nest*, house organ of the Cunard White Star Line, that company's travel films have been shown to more than 5,000 audiences comprising a total of more than 1,000,000 spectators. This we believe sets a record for the distribution of this particular type of non theatrical film. The cine activities of the Cunard White Star Line are managed by W. A. Probst, ACL.

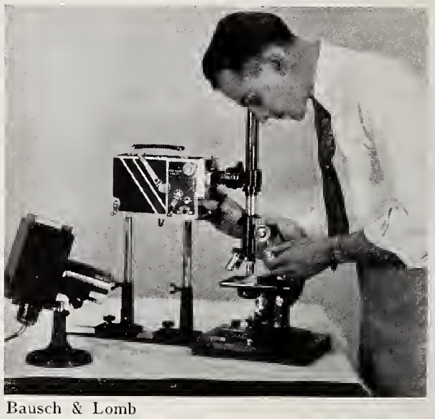
■ T. W. Willard, ACL, of New York City, reports that his company recently has produced a one reel black and white picture for the American Merchant Marine Library Association to show that organization's distribution of books for the benefit of sailors at sea. How books are acquired, sorted and distributed is covered in the first part of the picture, and the latter part traces the history of one book as it passes from ship to ship.

A picture for the Adirondack-Florida School, made in color, is another recent production of the T. W. Willard Motion Picture Company. The Florida portion was filmed by Porter Varney, ACL, of Miami.

For the National Council of the Boy Scouts of America, the same concern has recently produced a one reel color picture on the operation of the Cub groups in scouting. This picture, approximately one half interior, depicts the experiences of a youngster on first joining a Cub group, while the titles make the purposes and policies of the movement clear to parents. Two color pictures were produced simultaneously, and additional black and white prints will be used. It is planned that the picture be shown by Scout leaders all over the country.

■ Among the recent productions of the McLarty Motion Picture Service, in Buffalo, N. Y., is *The Story of Rexoil—the Flame of Flames*, which was made for the Rief Rexoil Corporation of Buffalo. This picture covers the development, manufacture and proper use of the Rexoil Oilburner and will be synchronized with an explanatory sound on film narrative. It is designed for screening at dealer meetings and conventions of heating engineers. *Be a Good Neighbor* is the title of another picture recently made by the same firm. Produced for the Buffalo Joint Charities and Community Fund, it runs about 700 ft. and summarizes welfare work in Buffalo. It will be presented with sound.

■ Motion study and employee training, two of the most valuable uses of the practical motion picture, have been worked out in a definite and successful procedure by H. F. Mosher, ACL, of the Commerce National Manufacturing Company, Commerce, Ga. First he films a factory hand at work and, studying the operation on the screen, analyzes it to locate the waste motions. A second film of the operation, as it should be performed, then serves him as a valuable training device for future employees in that position. A busy filmer, Mr. Mosher also is preparing a script for a film of the story of cotton, from planting to processing.


Bausch & Lomb

Special equipment can be had for cine micrography

■ Young men shaving and girls in curlers are all part of a publicity picture being made by J. Cantoni, ACL, for the Knights of Columbus Annual Ball. The dishabille scenes are to help show the intense preparation for the dance, but they by no means complete the picture. There are scenes of the committee hard at work, shots of people regarding posters and scenes of the dance itself, all to the end that everybody in Plymouth, Mass., or near Plymouth, should turn out to enjoy himself on the night of the big dance.

■ The organization of Industrial Cinemas, Inc.. a new firm engaged in the production of practical motion pictures, has been announced in New York City by Arnold M. Hill, ACL, former motion picture expert of the sales department of National Oil Products Company. William T. Vanderlipp, ACL, has been elected president of the corporation, which Mr. Hill will serve as treasurer and general manager. Ralph R. Eno, ACL, is secretary. According to its preliminary announcement, Industrial Cinmas will specialize in the production of advanced technical and scientific films designed for publicity or research, although the firm is equipped to handle the usual type of industrial work also.

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Every time you shoot a scene you tuck away a little bit of summer . . . file it for future enjoyment. And later, each of your sequences will bring to your screen all the warmth, depth and brilliance of summer itself . . . if you use Agfa 16 mm. Fine-Grain Plenachrome Reversible Film.

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Agfa 16 mm. Fine-Grain Plenachrome Reversible Film comes in 100-foot rolls at $4.50, and in 50-foot rolls at $2.75 . . . including processing and return postage. Made by **Agfa Ansco Corporation in Binghamton, N. Y.**

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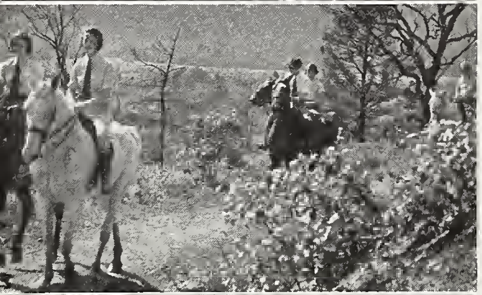

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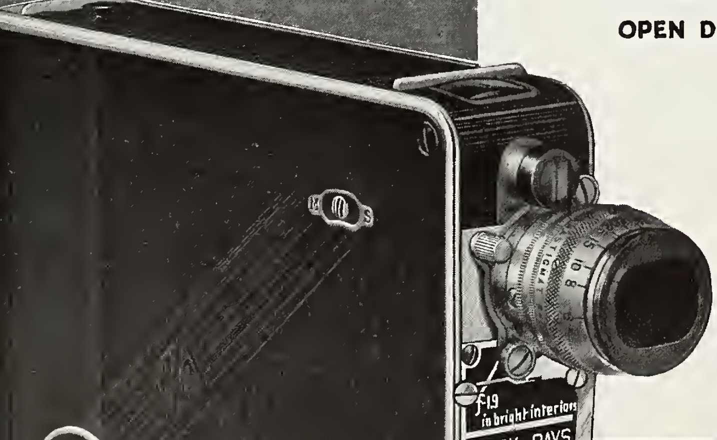

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1926-1936

The AMATEUR CINEMA LEAGUE, Inc.

whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

Hiram Percy Maxim, Founder

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Address all inquiries to

AMATEUR CINEMA LEAGUE, INC.
420 LEXINGTON AVE., NEW YORK CITY, U. S. A.

THIS month, the Amateur Cinema League is ten years old. Beyond that stark biographical fact, there is a richly human record of modest, unobtrusive, tentative—at first—but tenacious effort by thousands of men and women who have taken the tools of movie making and have used them to build an enduring structure in the newest medium of expression.

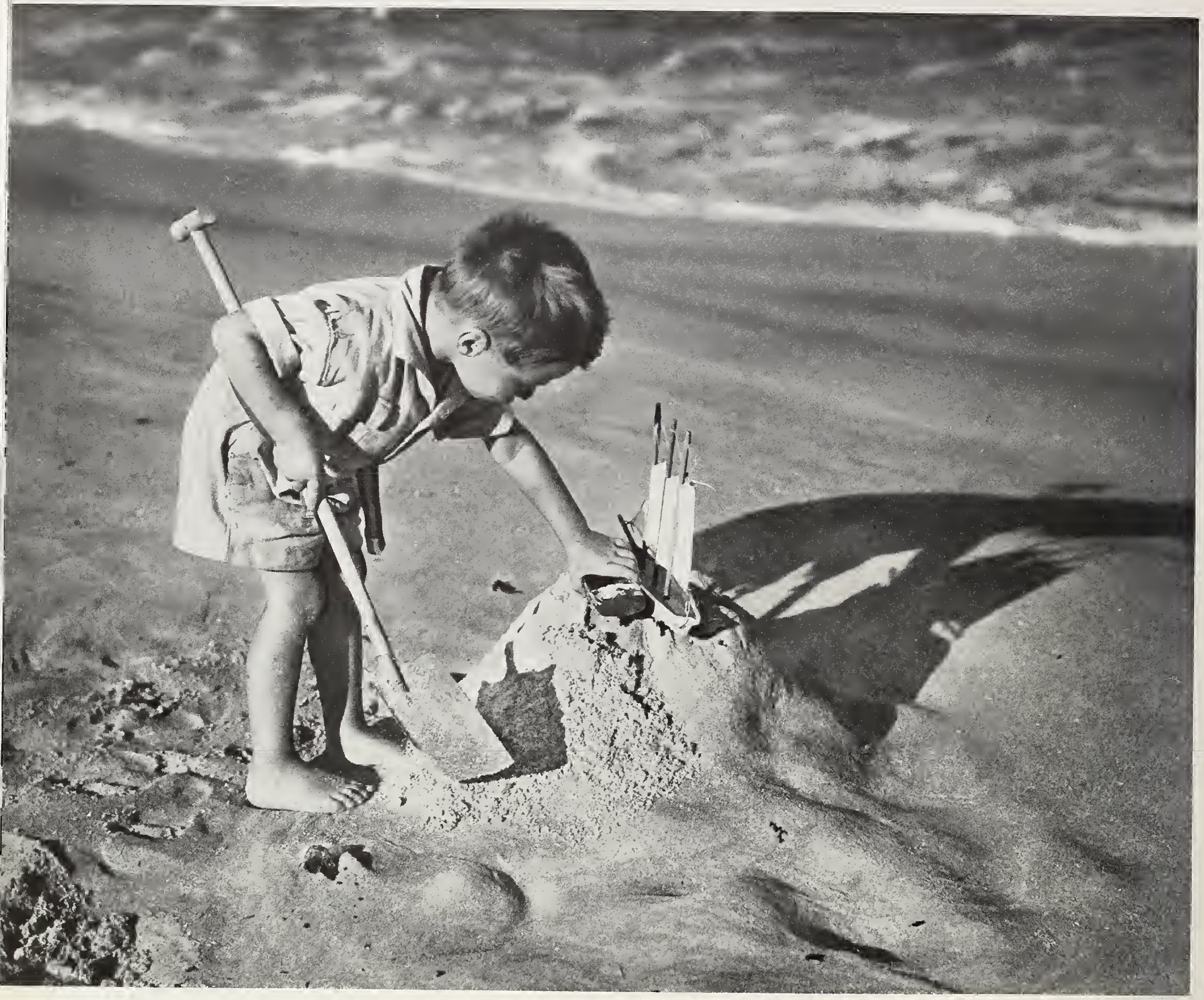
That a group of officers, directors and staff members has weathered ten years of managing the affairs of an organization of personal filmers is nothing that calls for particular comment. Their work has been shipshape. Of that they are justly proud. They can give a clean account of their stewardship. But they are the chore boys of the enterprise.

The reality of the Amateur Cinema League's decade of accomplishment lies in the disciplined competence, the stubborn tenacity and the unfailing loyalty of the movie makers who are the League. Cinematography does not permit of the fine frenzy, the lightning stroke of genius, the magnificent improvisation of poetry or music. It is a peripatetic and not a winged thing. Its results on the screen appear to be spontaneous, but behind them lie hours of dogged and painstaking work. To be competent means to be disciplined. To be disciplined means to have learned how to defeat the amateur's worst enemy—the temptation to be slipshod. League members are bulldogs for hanging on to a purpose. They use the easy way, when its results can be depended upon; if there is any question, they will take the rockiest road, if it leads to good movies.

Those of us at headquarters have an extraordinary respect for the loyalty of the League's members. This is manifested in a thousand amazing ways, but it never fails. We believe that we understand it and know why it is given. It is not a loyalty offered to individuals, because the majority of those who have ACL cards have no personal contact with their officers, directors or fellow members, nor do they know those who serve on the staff. It is not a loyalty to an oath bound ritual, as in secret orders, nor to a badge or a symbol.

Loyalty to the Amateur Cinema League is that tribute which honest craftsmen like to give to each other, each working more or less alone, but aware of the problems that the other meets. This loyalty is at once the simplest and the rarest, because it has no element of sentimentality and is not aroused by those who play upon the heart strings of multitudes. Its expression is always indirect and ready to shrink into silence at any but the most casual recognition. But it is solid as the rock of Gibraltar.

Competence, discipline, tenacity, loyalty—these things do not grow on every organization's bush. They are not evoked to order nor do they appear overnight. It is these that the Amateur Cinema League has gathered together in its membership and it is because of them that we rejoice on our tenth anniversary. May we all always be worthy of them and may they never depart from us.



Joseph W. Hazell

HERE is a high spot for a seashore sequence. Note the excellent composition, the youngster's intentness on what he is doing and the treatment of the background, which gives the motif and yet remains subordinate to the center of interest. Use side lighting for black and white (as in this case) but flat lighting will be better for color.

MOVIE
MAKERS

What lies ahead

A statement by the League's President

STEPHEN F. VOORHEES, ACL

WE ALL join in sorrow at the loss of our distinguished founder and leader, Hiram Percy Maxim, whose untimely death has cut short a most significant service to the cause of amateur cinematography. That I have been considered worthy to succeed him in his devoted labors for our organization places on me an obligation and a responsibility that I shall endeavor to meet to the limit of my capacity. To follow such a pioneer president demands the best that any of us can offer. I pledge my best to you.

Succeeding Mr. Maxim in mid February, it does not seem fitting that I should render an account of the brief period since his death. The reports of the managing director and the editor of Movie Makers will do this. Rather, I should like to present my concept of the aims and policies of the League, as the result of our constitutional mandate and our experience. If this concept is approved, I shall know that our members want these aims and policies to govern during my administration. You and I will then know where we are going and what we are to set as the goal.

Ours is an *Amateur* Cinema League. Simply stated, this means an association of movie makers who get satisfaction from filming. That satisfaction has as many facets as the human personality. There are those who find pleasure in keeping a kind of cine diary of the interesting events of their lives and of the lives of their families and friends; others search out the new possibilities of our developing medium of expression and experiment in the motion picture idiom; some make filming a practical adjunct to their serious and vocational occupations. From all these comes the satisfaction of real effort directed toward valuable ends.

Therefore, the Amateur Cinema League must not limit itself by premature definitions of what amateur cinematography is, because none of us knows what it will become. Our vision must be broad and our methods flexible, to the end that future generations of personal filmers shall not justly accuse us of having placed "no thoroughfare" signs at the entrance of any cinematic paths. As a service organization, mutually owned and managed, it must be our task to aid individual movie makers in whatever decent and legitimate enterprises they may undertake, keeping in mind the broad principle that this aid must be of a kind that can be available to all members alike, wherever located, and that the League must never be used to further the private purposes of one member at the expense of the rest.

Ours is an Amateur *Cinema* League. Because amateur movies are sometimes confused with the theatrical screen and with still photography, we must be on the alert to prevent viewpoints of those fields from deflecting us into channels of thought and action suited to the needs of personal cinematography. We must keep closely in touch with the main stream of amateur filming, we must know where it leads and our services must flow with that stream and not against it. This is not a disparagement of the League's function of leadership, in directing that stream wisely, if it lies in our power to do this; it is a recognition of the obvious fact that our organization is composed of non theatrical filmers who use equipment that, truly enough, is photographic, but that is, first of all, cinematic. As an example of this problem is the fact that most movie amateurs use reversal film and do not have to preoccupy themselves with dark room work, as do still photographic amateurs, nor to consider mass entertainment methods as do theatrical studios. For the minority interested in these matters, the League should provide service, but it must recognize the fact of the majority and gear its major aids into harmony with the wish of that majority.

Ours is an Amateur Cinema *League*. Our members are scattered over the whole world, while our headquarters, of necessity, must be in one place. This raises a nice point for adjustment. The greatest fairness to the largest number will probably require that we place comparatively little emphasis on actual meetings of members, since geographical limitations would forever prevent some of them from taking part, and that our major effort must always be to provide service that can be shared by filmers on the other side of the globe from our national headquarters in this, the world's largest city. The existence of clubs of movie makers, everywhere, places upon the League the pleasant obligation of serving these units, without ever presuming to control or direct them or to establish any fixed relationship to them other than that of giving whatever help may be possible without obligation, on their part, in receiving it. These clubs make practical the meetings of movie amateurs that are so rich in satisfactions and that the League has no regular mechanism to provide.

Since its foundation, the Amateur Cinema League has been international. It may well be proud of the working demonstration it has given in international friendship by reason of having determinedly kept clear of national viewpoints and national differences of opinion. By the accident of location of its headquarters, it has been inevitable that some persons should think of it as limited to the United States. However, it has protected, and always should protect, its international breadth of thinking and acting and should scrupulously avoid any course that would link it to national concepts.

The League has, for a decade, been the guardian of film freedom. Repeatedly it has declined to accept proposed defin-

[Continued on page 305]

Report presented at tenth annual meeting of League

When light is filtered

J. F. HOLDEN

THE subject of film sensitivity and the behavior of colors, filters and light are fairly complex and difficult to present clearly. Nevertheless, the effect of various kinds of light on film is the essential working medium of all movie makers, and a clear understanding of the fundamental principles may eliminate questions that occur to many cameramen. If one wants to tackle movie making on a serious scale, a grasp of the fundamentals of this subject will be useful in a great number of ways.

Light emitted by the sun or from any artificial source is propagated through space by electromagnetic waves. Scientists tell us that these waves travel at the tremendous rate of 186,000 miles a second. While there are many electromagnetic waves—radio, X-rays, cosmic rays—the band or group which the eye sees is called the visible spectrum. The difference between these electromagnetic waves is in their wave lengths, which range from extremely long waves to very short ones. Radio waves, for example, are of the long variety, while X-rays are very short. The visible waves lie somewhere midway between these two commonly known groups. (See Fig. 1.)

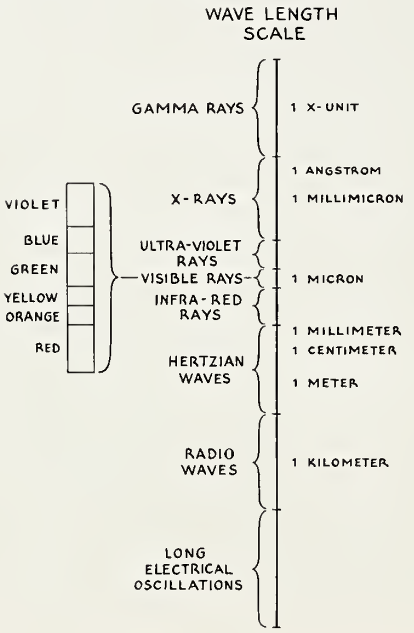


FIG. I

The combined group of visible waves emitted by the sun appears to the eye as white light. All waves travel at a constant velocity in a vacuum or outside the earth's atmosphere, but when passed through a transparent substance, such as water, glass or quartz, they are slowed up to a velocity which depends to some extent upon the wave length. An example of this slowing up phenomenon occurs when a beam of light is reflected from a stick of wood immersed in a pail of water, with the result that the stick appears to be bent slightly from the surface of the water downward. This is known as refraction. When a beam of white light is directed through a glass prism, it is similarly slowed up or refracted, so that the various waves of which the beam is composed are sorted out into a continuous gradation of color known as the visible spectrum. (See Fig. II.)

The longer, or red, rays are affected the least and the shorter, or violet, rays are refracted the most. The relative wave lengths of light can be represented as in Fig. III.

The visible spectrum can be divided into six distinct regions or colors; namely, violet, blue, green, yellow, orange and red.

These waves are extremely small, the violet—the smallest—being about 400 billionths of a meter and the red—the longest—being about 700 billionths of a meter. (A meter is 39.37 inches.) It is quite difficult for the human mind to conceive anything so small, yet these are the things we movie makers are playing with every time we make a picture.

Each color region can be diagrammatically arranged in the form of a chart representing the visible spectrum. (See Chart A.)

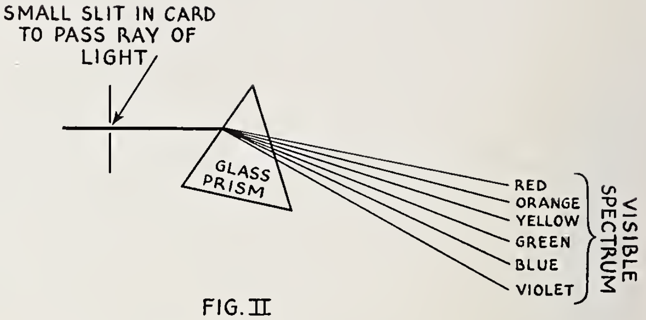


FIG. II

The white light of the noonday sun has a certain radiant energy distribution curve. In other words, the amount of each color in the sunlight can be measured and the relationship between the colors can be drawn as a curve superimposed on the diagram, as shown in Chart B. Sunlight is stronger in the blue, green and orange than in the extreme violet and extreme red.

There are certain atmospheric factors which materially change this curve so that it does not always have the same color characteristics.

Light from the north sky area, light on clouded overcast days and the light of the early morning or late afternoon sun will all produce a different type of color or radiant energy distribution curve if plotted on the above chart.

The reason is that the earth's atmosphere, which extends upward to about twelve miles, is full of dust and vapor particles of minute size suspended for the most part within four or five miles of the earth's surface. Many of these particles and vapors are about the same size as the wave lengths of blue and violet light. This causes the blue and violet waves of light to be reflected or scattered from their path. The red, orange, yellow and green rays, being larger than the particles, pass around them. The sky is blue because of this scattered blue and violet light. (See Fig. IV.)

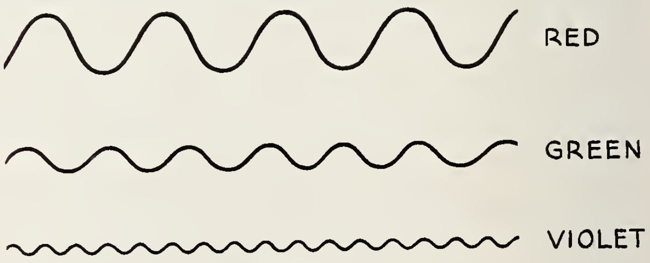


FIG. III

The radiant energy of a north sky in midday sunlight may be represented as shown in Chart C on page 303.

It will be noted that the north sky is very strong in blue and violet light but deficient in green, yellow and red.

Now let us consider the early morning or late afternoon sun. Fig. IV illustrates how the sun's rays, when coming to the earth's surface, must pass through several times the number of dust particles at the time of setting as at high noon. Here again the violet, blue and even the green and some of the yellow rays are scattered, leaving only the long red rays to penetrate through the atmosphere to the observer. For this reason, sunlight is usually much redder after about four o'clock in the afternoon and before nine in the morning. During the period from nine until four, we receive fairly normal

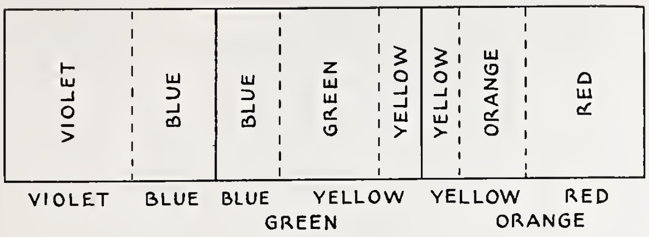


CHART A

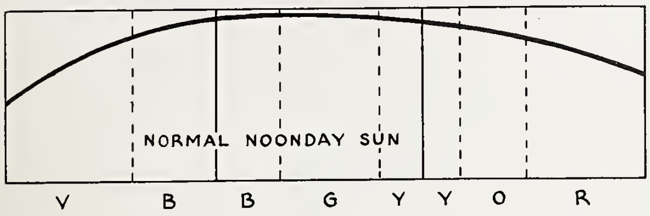


CHART B

radiations from the sun, as shown in Chart B.

If we are to represent the early morning or late afternoon sun, the curve would appear as shown in Chart D on page 303.

It is strong in the red and very weak in the blue and violet.

Sunlight between nine in the morning and four in the afternoon is fairly constant from day to day, during any given season, but it will vary from season to season. Sunlight before nine and after four will vary from day to day, depending upon the number of particles and the amount of vapor in the atmosphere. Some days, the sun appears very red on setting, while on other days, after a rain has partially cleared the atmosphere, it will be a bright yellowish or orange in color.

On a clouded overcast day, the general radiant energy curve would resemble Chart C, the north sky in sunlight.

Artificial tungsten light, such as the Photoflood lamp, has a curve similar to Chart D, on page 303, representing the late afternoon sun.

Carbons for arc lamps can be obtained which have a radiant energy curve almost identical with Chart B, normal noonday sunlight.

The above data indicate that the photographer has quite a wide variation in the color of light available for photography.

Let us now leave the subject of light for a moment and consider the characteristics of photographic emulsions. Early 16mm. emulsions were strongly sensitive in the blue violet region of the spectrum, slightly sensitive in the green, with little or no sensitivity in the red. Films of this type were called orthochromatic and could be developed in red light without danger of fogging in the time required for development.

It is possible, with any given type of film, to make a picture of the spectral image of sunlight or artificial light. The ability or inability of a film to reproduce the spectrum accurately in monochrome is a measure of its degree of sensitivity to each color. The color sensitivity curve of any type of film can be expressed in a fashion similar to the radiant energy distribution curve. The curve of the early type of orthochromatic film is something as in Chart E on page 303.

A study of color effects on films and filter usage

Later, chemists developed sensitizing dyes, making it possible to manufacture a film sensitive in the yellow, orange and red regions as well as in the green, blue and violet. A film of this type is called panchromatic and its curve is represented in Chart F on page 303.

While panchromatic film exposed in daylight is sensitive in the red, orange and yellow regions, it is still much more sensitive in the blue and violet.

Later, supersensitive panchromatic film was made by increasing the film sensitivity in the yellow, orange and red regions of the spectrum. Its sensitivity curve to tungsten light is represented in Chart G on page 303.

Supersensitive film was first made commercially for the artificial light studios in Hollywood, to enable them to take advantage of the excess red rays in artificial light, thus requiring fewer lights or enabling the photographer to use a smaller diaphragm opening on the camera lens.

Each of these types of film has very definite characteristics. Panchromatic film will render excellent results in daylight and can be controlled to render true monochromatic values. Supersensitive film is ideal for artificial light pictures, twilight scenes, dark days or pictures at night of street scenes, electric signs, store windows, etc.

Advances in dye chemistry have made it possible to produce dyes of colors which will match all the colors of the visible spectrum. These dyes may be dissolved in gelatin and made into filters representing the various colors of the spectrum.

Now let us see what happens when a sheet of colored gelatin filter is inserted into a spectral beam of sunlight coming from a prism. Any filter selected will absorb some of the light rays and transmit others. Let us first try a red filter. (See Fig. V on page 303.)

The red rays, some of the orange and a little yellow will be transmitted; the green, blue and violet will be completely absorbed.

If we insert a yellow filter in place of the red, the red, yellow and some of the green will be transmitted. Part of the green and all the blue and violet will be absorbed by the filter. (See Fig. VI on page 303.)

A green filter will transmit the green band of light, some of the yellow and some of the blue. But the red, orange and violet will be absorbed by the filter. (See Fig. VII on page 303.)

A blue filter will transmit the blue and violet light, and a small part of the green, but will absorb the yellow and red bands. (See Fig. VIII on page 303.)

Now it is easy to see how filters [Continued on page 303]

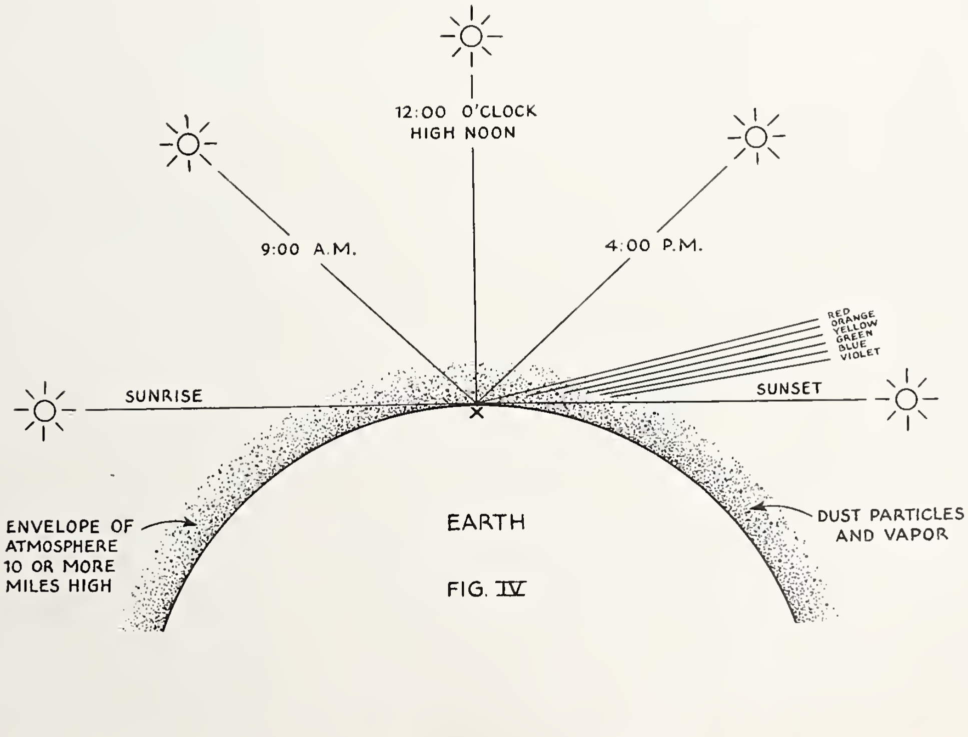


FIG. IV

Using desert light

RALPH RUGER, ACL

PERHAPS no portion of North America has been more neglected by the movie maker than the southwest desert region, yet few sections offer more in the way of scenic variety. Across western Texas, southern New Mexico and Arizona and into the Lower Imperial Valley of California, every mile, every turn of the road, presents new and fascinating movie material.

In spite of what one hears to the contrary, it is not difficult to film the desert, nor is any elaborate equipment necessary. Information on the subject is too often vague and uncertain. Before starting on our trip, we were warned against the "terrible" light conditions to be encountered in the Southwest, the brilliant sun and heavy shadows, dancing heat waves to cause distortion and so on in a disheartening vein. Consequently, we approached the desert with awe and with misgivings as to what we would be able to accomplish. Yet we had not been long on the spot before we found it advisable to throw overboard all our preconceived ideas and to start anew.

Since our crossing of the desert was made in June, this article is based on conditions prevailing during that month. The following bit of information, however, was imparted to us by a photographer in El Paso, who has spent many years making pictures in the Southwest. Light conditions, he told us, will vary to a certain extent throughout the year but, on the whole, remain fairly constant the entire twelve months—a fact most desirable to remember.

Strangely enough, with all the brilliant sunlight available, the majority of amateurs *underexpose* most of their desert shots. The reason for this is not difficult to find. In the Southwest, especially during the summer months, the sun at midday is almost directly overhead, thereby giving one a landscape practically devoid of shadows. There are no green fields or trees to soften the light, and Eastern eyes ache with the brilliancy. The newcomer reasons thus: "If I'm going to get any kind of a picture here, I'd better stop down to the limit and filter heavily." This is precisely what he does in nine cases out of ten and the result, much to his astonishment, is underexposed film. Or he may attempt to "tone down" the shadows, with equally disastrous results. Atmospheric conditions make the sun *appear* much brighter than it really is. Since the wise movie maker rarely will shoot any scenes at noon, we will confine our discussion to the morning and afternoon hours. First of all, you must steel yourself to ignore the shadows which loom so darkly. This doesn't mean that you can set your lens for an open shot and then calmly "panoram" into the shade, as a friend of ours is constantly doing. It simply means that, if you attempt to neutralize the shadows in a desert scene, you inevitably are going to get a very contrasty picture, hopelessly out of balance, with blobs of shadow standing out against an almost blank background. Once you have learned that first lesson, you will find that those black shadows will take care of themselves surprisingly well. The film in your camera is able to "see" into them much better than your own eye, and the resultant picture will be balanced beautifully if your exposure is anywhere near correct. Harsh contrasts disappear, which may explain why so many desert pictures are far lovelier than the real thing. Film, aided by filters, will transform the pictured landscape to a thing of almost unearthly beauty.

Exposure data for filmers who visit the waste places

What we learned about exposure, by the trial and error method (we had no meter), proved sound. Our final results were remarkably even and, after preliminary experiments, we did not lose a foot of desert film.

Among other things, we discovered the value of half stops. For example, where an exposure at *f*/8 with black and white film would be correct for direct sunlight in the East, we found that a setting between *f*/8 and *f*/11 gave us the desired result on the desert, while *f*/11 proved too much.

With the exceptions of closeups, which were shot with the usual openings, we finally hit upon the following method as ideal for us. For medium shots of streets or buildings, we used a 2x yellow filter at the stop between *f*/8 and *f*/11. For longer shots, such as of distant mountains, we stopped down to about *f*/14, using the same filter. One of these latter shots gave us a magnificent view across El Paso to mountains in Mexico more than sixty miles away. All our shooting was based on the use of that 2x filter, it being the only one we had. For heavier filters, there must, of course, be corresponding stop compensations.

There is a great deal of red in a desert landscape and the sky is very blue. Hence, a filter of some sort is almost a necessity if your picture is to be balanced. Otherwise the sky will turn out a flat white and mountains may look like jagged cardboard against it. A red filter would have given variety, for it causes the sky to appear dark in relation to the rest of the scene.

Remember that distance is one of the features of the country, and you want to get that impression on the film. With the foreground clear and the distant mountains appearing through a slight haze, one obtains an effect of tremendous depth on the screen.

[Continued on page 307]

Foreground action and a composition improve long shots

Philip D. Gendreau

Marvin Breckinridge

Ranch scenes will add authenticity to a rodeo picture

Rodeo reels

ALEXANDER HEALY, JR., ACL

What to find and what to film are suggested briefly

EVEN before you start to film a rodeo, I want to caution you to keep a pretty tight lip when talking to the participants. You see, if you are in the Southwest and are caught pronouncing rodeo to rhyme with "*vo*-de-oh," you are likely to be strung immediately to the nearest tree or thrown into a cactus bed. On the other hand, if you are in the Northwest and say "ro-*day*-oh," have your hand on your gun, not your camera.

With this in mind, let us look to the cinematic possibilities which a rodeo presents to the movie maker. Once on the grounds, you will see so many angles, so many new, unprecedented actions and activities, it is very likely that you may get lost in a jumble of details and be unable to see the forest for the trees—the whole continuity for the scenes. It is for this reason that I recommend planning the entire film in advance, figuring *what* you will include in the running continuity, *when* each action best can be filmed and *how* it can most effectively be done. This is not as hard as it would seem at first. I will try to show you why.

All rodeos are based on these fundamental activities: bucking bronchos, horse races, steer or calf roping, bucking steers, trick riding, trick roping and a clown performing more or less funny antics. Figure in advance that you will want one or two good sequences of all these things and then go about getting them. The story can be spun in the editing room. Some rodeos last several days, in which case, if you are very spry, you can record the activities of each of the days. If you have scruples against being so "peppy," fix up a continuity in your editing and consider all the scenes taken over a period of the several days as taken on one day.

But what to use for an introduction? No good movie maker wants to start right in on his subject in cold blood. Your future audience must be given something to set its mood in proper key, something to let it see the various sequences of the rodeo itself in proper proportion. A certain amount of suspense must be built up to do justice to the action in the body of the film.

Film the parade. No more natural introduction exists. Get establishing shots of the crowds lining the street. Take cinematic angles of cowboys and cowgirls in full regalia. Show the quaint, picturesque, horsedrawn vehicles with the costumed passengers and, as each striking coach goes by, turn and get reaction shots of the crowd. Film the parade, and try to get into your filming the feeling of suppressed excitement, of carefree confusion and holiday gaiety of rodeo day.

Open the body of the film on a good, fast action shot of a bucking horse coming out of the chute and jumping for all he is worth. It is, of course, better to be over by the chutes to get the best views of this action, and carrying a movie camera often enables you to get into a lot of places where most people are not allowed. A tripod, too, not only adds to the importance of your aspect, but is absolutely essential if you intend to use a telephoto lens, a very handy device indeed in filming rodeo action.

But with or without a telephoto, a tripod is distinctly an asset. The steadiest hand cannot but move slightly, and hand held shots are always recognizable as such on the screen. However, if you feel encumbered by a tripod, there is a pretty good substitute. Simply find a length of strong twine, a rope or a bit of chain, fasten one end around your foot, hold the other end in your camera hand *and pull*. You will find the steadiness of your camera enhanced over ordinary hand holding.

For your broncho busting sequence, after the first horse has jumped from the chute, go back and get some shots of the men roping another horse in the little corral in the rear. An establishing shot of the horses milling around, as the cowboy prepares to rope one that he has picked out, can be cut to a shot of the man whirling his noose. Then would come a shot of the noose circling the horse's head. Another shot could follow of the horse struggling against the rope and then scenes of his being loaded unceremoniously into the chute. Watch closely for a good, scary action shot if the horse rears back and tries to jump out while he is being saddled.

[Continued on page 308]

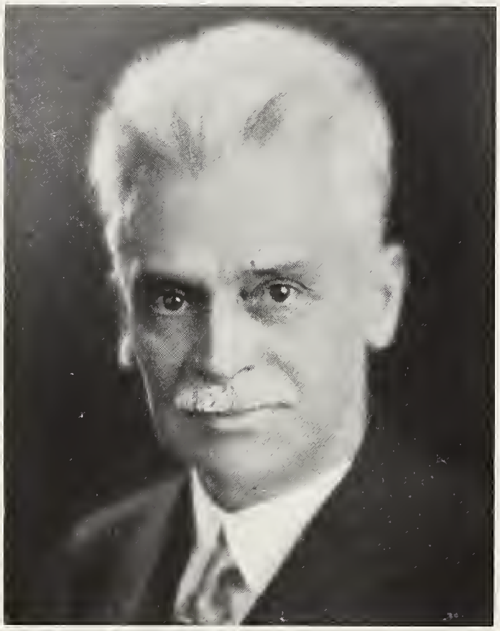
A decade of the ACL

ROY W. WINTON, ACL

TO capture the objective point of view in selecting the incidents and accomplishments that have been most significant in the first decade of the Amateur Cinema League's work is, for one who has been continually involved with it, a difficult thing. It is easy to overrate, because of enthusiasm, and to underrate, because of familiarity.

Hiram Percy Maxim, whose death early this year removed from the world a man of far vision and great ability to realize that vision, was the father of the Amateur Cinema League. In 1926 he had gathered around him, in Hartford, Connecticut, a small group of friends who looked at each other's amateur movies—then so new—and wondered how to make better ones. Mr. Maxim had united amateur radio enthusiasts into a national and, later, into an international organization; he believed that personal cinematography offered the basis for another body to be formed for mutual assistance. He early recognized what has since become a demonstrated principle of our association, that the interests of manufacturers and distributors do not conflict with those of users of the products made and distributed, and he asked the leaders of the young amateur movie industry if they could see, as he saw, a practical future ahead for an international organization of movie makers.

Not only did they see this future, but they eagerly offered their facilities to Mr. Maxim in his project, if he would consent to go ahead with it. A conference was held June 29, 1926, at the Lotus Club in New York City, at which Mr. Maxim indicated that he would undertake the formation of an Amateur Cinema League. A month later, July 28, 1926, in the full heat of a metropolitan summer, fifty five persons gathered for luncheon at the Hotel Biltmore, in New York City, to listen to the suggestions Mr. Maxim presented and to the prophecies of Dr. Alexander Black, an early amateur filmer. In attendance were representatives of the amateur movie industry, among them J. H. McNabb, ACL, president of the Bell & Howell Company; Alexander Victor, president of the Victor Animatograph Corporation; L. B. Jones, ACL (deceased), vicepresident of the Eastman Kodak Company; Colonel Jason S. Joy, at that time assistant to Will Hays, now of the Fox Film Corporation; Eugene Chrystal, ACL, of the Eastman Kodak Company; Jules Brulatour, ACL, film distributor; Richard B. Lewis, of the Harvey and Lewis Company, photographic retailers; Thomas Roberts, jr., president of the Eastman Kodak Stores of New York City.



Underwood & Underwood

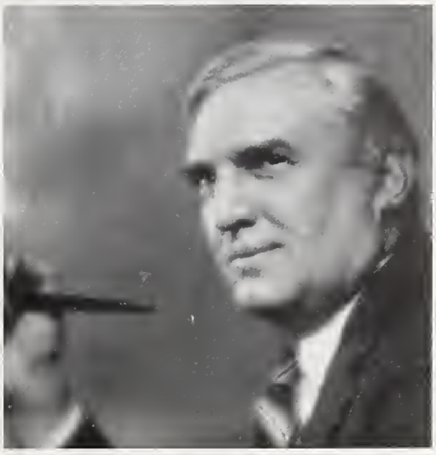
Hiram Percy Maxim, Founder

In attendance were also Carl W. Ackerman, ACL, dean of the School of Journalism of Columbia University; Wilton A. Barrett, secretary of the National Board of Review of Motion Pictures; Howard S. Braucher, secretary of the National Recreation Association; Harold S. Buttenheim, manager of the American City Bureau; C. R. Dooley, ACL, personnel manager of the Socony Vacuum Oil Company; Walter R. Hine, ACL, vicepresident of the J. Walter Thompson Advertising Agency; John F. Moore, of the International Committee of the Y.M.C.A.; Colonel Clarence A. Perry, associate director of recreation of the Russell Sage Foundation; General Robert I. Rees, assistant vicepresident of the American Telephone and Telegraph Company; Mrs. Anna Steese Richardson, editor; Frank Seaman, ACL, philanthropist; C. C. Vernam, publisher. Four who later became directors of the League were at the luncheon; they were Mr. Maxim, Mr. Dooley, Arthur A. Hebert, ACL, and Roy W. Winton, ACL.

Tenth anniversary records progress of League members

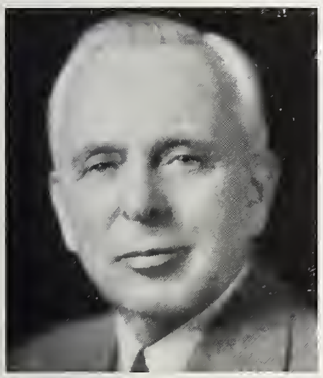
Those at the initial luncheon voted that an Amateur Cinema League be established, elected Mr. Maxim as its pioneer President, requested him to associate with himself a directorate of nine others and confided to him the task of organization. Mr. Maxim promised his best efforts. Later he selected Earl C. Anthony, of Los Angeles, radio executive; Roy D. Chapin (deceased), of Detroit, chairman of the board of directors of the Hudson Motor Car Company and later Secretary of Commerce of the United States; William F. Cotter, of New York City, executive of the Union Carbon and Carbide Company; Mr. Dooley; Lee F. Hammer, of New York City, director of recreation of the Russell Sage Foundation; Mr. Hebert; Floyd L. Vanderpoel, of Litchfield, Connecticut, radio experimenter; Stephen F. Voorhees, of New York City, architect; Mr. Winton, as pioneer directors with him. This board has continued to serve with few changes. In 1930, after repeated urging from them, on the plea of business pressure, the resignations of Messrs. Anthony, Chapin and Cotter were accepted by the Board. In their stead were chosen Mrs. L. S. Galvin, of Lima, Ohio, pioneer experimenter in trick cinematography for the amateur and an Associate of the Royal Photographic Society; W. E. Kidder, of Kalamazoo, Michigan, paper manufacturer; T. A. Willard, of Beverly Hills, California, chairman of the board of directors of the Willard Storage Battery Company. On Mr. Maxim's death in 1936, John V. Hansen, of Washington, D.C., artist and experimenter in color cinematography, was elected to succeed him as a director.

By September of 1926, members began to materialize. The honor of being the first goes to Carl W. Ackerman, also a life member. One founder member, Mrs. George C. Kolb, of Beverly Hills, California, came in about this time. Life members prior to 1927 were Mr. Ackerman, Charles E. Bedaux, Jules E. Brulatour, Roy D. Chapin, E. L. Cummins, Madame Amelita Galli Curci, H. H. Franklin, Charles A. Harrison, A. C. Hayden, L. B. Jones, Richard C. Lindsay, Hiram Percy Maxim, C. Hayward Murphy, J. H. McNabb, George D. Pratt, Frank Seaman, Walter A. Strong, Stephen F. Voorhees and T. A. Willard. One sustaining member was glad to pay the fifty dollars a year necessary to acquire this status. This was George Eastman, who was later elected an honorary life member just prior to his death in 1932. Messrs.



Pirie MacDonald

Stephen F. Voorhees, President and Director



Blackstone Studios

Lee F. Hanmer
Vicepresident and Director

Kaiden-Keystone Studios

C. R. Dooley
Director

Hebert Studios

A. A. Hebert
Treasurer and Director

George T. Charlton

Mrs. L. S. Galvin
Director

John V. Hansen
Director

W. E. Kidder
Director

T. A. Willard
Director

Underwood & Underwood

Roy W. Winton
Managing Director and Secretary

Chapin, Jones, Maxim and Strong have also since been lost to the League by death.

Until January, 1927, the officers of the League were Mr. Maxim, President, Mr. Hebert, treasurer, and Mr. Winton, managing director and secretary. In that month the League was incorporated as a membership corporation under the laws of the State of New York. The same directors were retained who initiated the earlier unincorporated body; the same officers continued to serve and Mr. Voorhees was elected vicepresident. These officers remained unchanged until, on the death of Mr. Maxim, Mr. Voorhees was elected President and Mr. Hanmer vicepresident in 1936.

Upon incorporation the constitution of the unincorporated League was readopted and has since remained unchanged. Its purposes were announced as follows:

"The purpose of the Amateur Cinema League, Inc., shall be the increase of pleasure to amateur cinematographers by aiding them to originate and produce amateur motion pictures; the advancement of amateur motion picture photography and the promotion of interest therein; the organization of clubs of amateur cinematographers; the publication of a periodical to provide information about amateur cinematography and to provide entertainment for the members of the League; the mutual exchange, for temporary showing, of films made by amateurs throughout the world; the stimulation in production of community photoplays to be written by members, directed by members and acted by members as amateur enterprises: the representation of amateur cinematographers in legislative affairs; the maintenance of fraternalism and a high standard of conduct among its members; and the promotion of other cognate interests."

The first efforts of the League's administration were devoted to building a supporting membership. At the first annual meeting in May, 1927, this was reported as an accomplished fact with 1338 members at that time. It was evident that the program as outlined in

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If you film at the beach

JAMES A. SHERLOCK, ACL

Precautions that will insure good seaside pictures

IT'S easy to make a casual beach movie, for there is interesting action on every hand and attractive backgrounds of ocean, dunes and sky, while the modern beaches offer the color filmer a riot of brilliant hues. Don't hesitate to take your camera to the beach with you, for you will never regret sequences caught on the spur of the moment.

However, if you are planning a serious picture of the beach —a real cinematic effort at first class beauty and entertainment—you will find that few subjects require more careful planning before the actual filming begins. This is especially true if actors are involved, for otherwise movie making must compete with the enticing diversions of the beach itself.

When the plan has been completed, it is also wise to make advance test shots under various lighting conditions and with the assortment of filters that will be used. This will save film in the long run and will introduce an inevitable difficulty— sand!

If it gets in the case, sand can cause quite a lot of damage to the mechanism of a camera. To prevent the possibility of this damage, place a bag or heavy piece of cloth over the camera on the tripod when it is not being used. The camera case, carrying all accessories, could be placed inside a larger bag, which will help to prevent flying sand from getting on filters, lenses, etc. A new piece of fine chamois should be included in the kit, as ozone will quickly collect on the lenses if the breeze happens to be blowing from the sea. Chamois will give better results at the seaside than lens cleaning paper. Many movie makers have two cameras, one of which is an inexpensive, second hand model kept for work such as this, which might be hard on an expensive type. Thus, even if the camera is dropped in the water, the loss will not be great.

Test shots will prove that the hours between 10 a.m. and 2 p.m. do not give as satisfactory results for black and white filming as the early morning or late afternoon. Between these hours, the sand is a glittering, shimmering surface; shadows are contracted and the glare compels people to screw up their eyes. Detail is missing in the sand formations because of flat lighting. The oblique lighting of early morning or late afternoon is also noticeably valuable in picturing foamy breakers. It causes them to appear thick and creamy, while around midday they lose their depth and frothiness.

A photoelectric exposure meter is a very important aid in beach filming, but one must use it properly. A meter of this type collects light rays to within an angle of thirty degrees on each side of the lens axis. This angle can be mentally pictured by looking at the hands of a timepiece that is set at five minutes past 11 o'clock. Because of this angle, it is expedient to take your meter to within a few inches of the subject or of some similar object under the same lighting conditions. For example, let us say that it is desired to make a closeup of a man's head against a clear sky, which would call for a two inch lens with the camera about five feet away from the subject. Now, if the light meter is held at the camera position, the reading will be affected by the sand and sky. But, if the meter is held within three inches of the man's head, only the reflected light will be measured. Since the facial detail is wanted, the lens would be set at the latter reading. If in doubt, lean toward underexposure rather than overexposure on reversal film, but do not hope for the same quality in your seashore pictures as you will get at other locations, because, in monochrome filming, deep shadows make the picture, and even at early morning or late afternoon deep shadows are hard to find on the beach.

A selection of filters is important if panchromatic film is being used. I find that I get the best results if the film and filter are made by the same manufacturer, although this is a fine point. The reason that filters are particularly recommended with panchromatic film at the beach is that this film is very sensitive to blue light, while this color predominates at the seashore. A filter must be found that will reduce the amount of this light reaching the film and which, at the same time, will not turn the blue green of the deep water, or the red of the colored costumes, black.

I have found a deep yellow filter best. This will not give perfect color renditions, as the sun

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Keystone View Co.

Side lighting gives modeling to both sand and subjects

German Railroads Information Office

The Berlin Olympics

DR. HANNS PLAUMANN

Secretary of The German Association of Film Amateurs

WHEN athletes representing every country gather at Berlin in August, 1936, for the purpose of matching their skill and brawn in the noble tradition of the Olympic Games, movie amateurs from the entire world also will find an opportunity to make motion pictures of historical importance as records and of great appeal as entertainment. Such films will become documents of lasting value.

Germany, and especially Berlin, has been making many interesting preparations for months. It is planned to make the visit of our guests as pleasant as possible, and we Germans are particularly pleased when a large number of visitors from the United States travel to our shores, as we perfectly realize the prestige to which Americans are entitled, in the fields of both athletic competition and amateur movies. We, therefore, desire to afford the opportunity to both sport lovers and movie amateurs to practice their hobbies to their hearts' content, and we hope, nay we feel certain, that those who will cross the ocean as our guests will not be disappointed.

In spite of the desire of those in charge of sport activities to simplify making movies of the Olympic Games, it will not be possible to permit cameramen on the tracks or arenas, because impartial care must be taken to protect both the athletic competitors and the judges against unforeseen occurrences. Nevertheless, nobody will be prevented from filming the events from his seat in the stands or from the places in other fields that are reserved for spectators. For this reason, we strongly advise those who intend to film such pictures to bring their telephoto lenses and some light form of camera support. With the aid of the telephoto, certain events may be filmed with ample clearness, although it should be borne in mind that the filming necessarily will be confined to the seats allotted to amateur photographers. You may be assured of some very fine pictures depicting the atmosphere of the Eleventh Olympic Games.

The final continuity of the film is a matter that must be left to the discretion of each sport lover, for it will depend on whether he wants a general record, as complete as possible, or whether he has a preference for this or that event.

Many of the specialized sports will be so staged as to provide beautiful movie material. Satisfactory shots can be made of the swimming events, from the spring board tower of the stadium for water sports. On the other hand, the technique, as well as the particular style of the swimmer, may be filmed from a higher position near the swimming pool. However, whenever water pictures are to be filmed, remember the reflection of light. As one always wishes to see what takes place under the surface of the water as much as possible, light reflections are a great source of annoyance. Likewise, remember to stand with your back to the sun. Fancy diving may be filmed most satisfactorily by substituting slow motion for normal speed. Take all dives at twenty four or thirty two frames a second and get some of them at sixty four frames a second, if possible.

Above, an Olympic theatre and, below, an Olympic athlete

A German amateur has good counsel for those who go

With slow motion, it will also be possible to make good films of running events without resorting to the use of a tripod if your hand is steady and the focal length of the lens is not more than three inches. Slow motion always improves hand held telephoto shots and, at the same time, it makes a better picture of the action possible. However, a certain degree of accuracy and experience will be required to keep the entire group of contestants in the field and in focus. Without the slow motion, the use of a telephoto would necessitate a camera support of some kind.

In case it is desired to film boat and crew races, it is essential to find an opportunity to accompany the racers in another boat, if the event itself is to be pictured.

Pictures filmed while the athletes are in training and shots made of the preparations for the Olympic Games may serve as a remarkable prelude to views of the actual Olympic Games. Sequences taken of the sailing, the trip across, the reception at Berlin, the opening of the Games, the course of the latter and the closing will furnish material for a complete continuity. However, don't neglect shots of the city of Berlin, with its clean and beautiful surroundings, and, if you travel in Germany, shots of your journey will be an everlasting source of pleasure.

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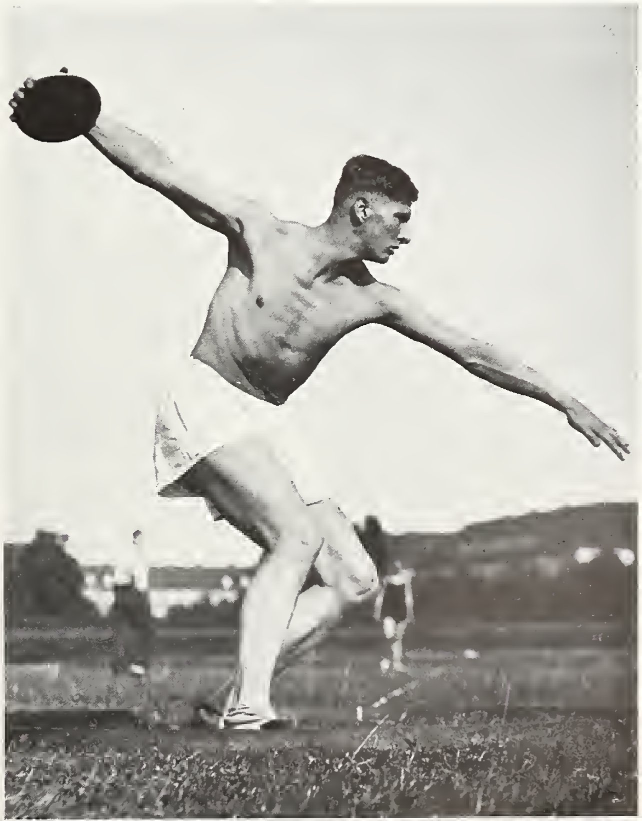
German Railroads Information Office



Afterthoughts on color

ORMAL I. SPRUNGMAN, ACL

I AM sitting here beneath the mellow light of a forty watt lamp. The tickling aroma of film cement hangs in the air. It is long after midnight, but that does not matter, for I am reliving a seven weeks' trek into the Pacific Northwest. I am shooting once again the dazzling glaciers and cinnamon bears and pack ponies and snow crusted peaks. I have made some bad filming errors, but over the splicing block I have repented. Right now I am learning.

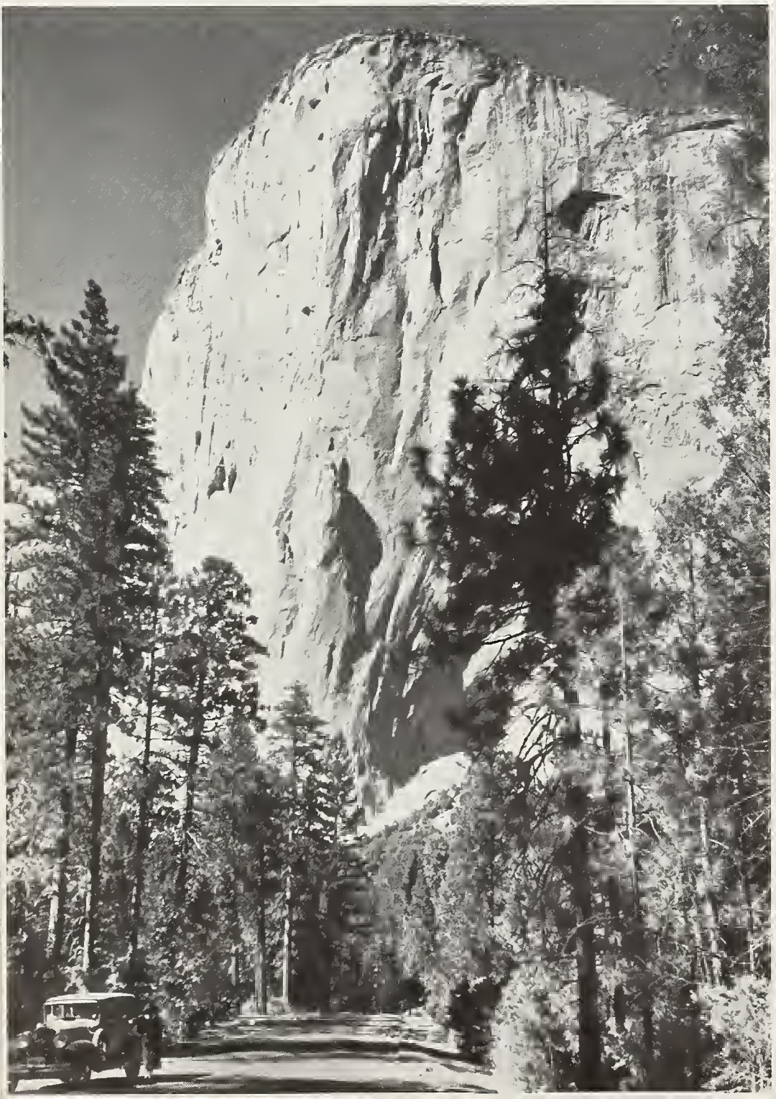
When I started westward with only 400 feet of Kodachrome, I purposely tried to make every frame count. Because ours was more or less of a "vagabond voyage," I had not the slightest idea where the footage might be used. I knew we were going to camp in Glacier and the Tetons, but before the summer was up we found ourselves on the slopes of Mount Rainier and Baker and looking over the rim of Crater Lake. This complicated matters, changing the film's complexion purely to that of a scenic.

I think the first thing I learned was that filming in color is quite a bit different from filming in black and white. I like to shoot outdoor silhouettes and I like to place dark objects in the foreground to enhance my brightly lighted distant scenes. The contrast between light and dark gives black and white pictures atmosphere and depth. But, with color film, everything is changed. It is not the play of shadows but the balance of reds and blues and greens that attracts attention. Color itself seems to dominate even the action in the scene.

Try some color if you visit national parks this summer

What editing can teach the filmer for next venture

Leo J. Heffernan, ACL



Another thing I found out was that a tripod is still an essential for rock steady pictures — and especially so in color. For a few shots, I held the camera in my hands—purposely—and when moving action was present, the lack of a camera support was not noticeable. But, for framed scenics of snow topped mountains or bluish pools, the "jitteriness" of even the steadiest hand seems amplified on the screen when color film is projected. Often, if there was a ledge of rock, an old stump or a rustic fence on which I might support the camera, I found that it was not necessary to set up the tripod. Sometimes I got into tight places where a tripod would have hindered rather than aided shooting.

I know I shouldn't have done it, but I even tried "panoraming." I "panoramed" ever so slowly, up and down and right and left. I wanted to find out how this would affect a scene taken in color. Would it make the colors "run"?

I "panned" from a road sign closeup to the left to include a long shot of a mountain range in Wyoming. I did considerable rehearsing before I took that shot, for the fingers on my left hand had to perform three separate duties simultaneously. The lens barrel was grasped between thumb and first finger to compensate for the change in focus as the camera moved. The second finger rested on the diaphragm scale so as to cut down on the light for the long shot after the closeup of the sign. My fourth finger pressed the camera trigger.

The exposure was good but the movement included too much territory. Right now the once prized scene lies in the waste heap near my editing table. It won't go into my Western film. I have learned or relearned a thing or two about panoramas.

The white enameled roadside signs, sans "panoraming," were excellent subtitle savers, and these were always photographed against a natural green or brown background for emphasis. The shot of the sign, "Logan Pass, El. 6654," was made at an angle against a semi cloudy sky to give the effect of high altitude. The most pleasing results are obtained when the sign fills not more than one half of the finder and is taken at a sufficient distance to include a portion of the background.

To introduce one trail marker in not too conspicuous a manner, I took a semi closeup of my partner, with pack on back, pausing along the path to wipe his brow. As he slips the kerchief into his pocket and walks out of camera range, a mile post before which he had been standing is naturally revealed.

Sometimes I would forget myself and take a human closeup where the sun furnished a pretty side or back lighting. In nearly every case, the shadow cast would come out a darkish purple. An increase in exposure might have corrected this, or the use of reflectors might have lightened the shadow, but reflectors always seem to be superfluous equipment when the trail is long and the mountains steep.

Perhaps my greatest difficulty—one which probably has at one time or another bothered numerous color fans—was judging accurate exposure, for mountain light is indeed baffling. The new color film, having less latitude, seemed to emphasize exposure errors. My misjudgments, incidentally, were always on the darker rather than the lighter side.

Not once did I cut down exposure to *f*/11. The average for bright scenes was *f*/8, and variations between *f*/5.6 and *f*/8 were quite often used. I learned

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Publishers'

Park film rules

CARL L. OSWALD

MR. AVERAGE CINEMAKER, having mastered the fundamentals of the manipulation of his camera, lenses, filters and other equipment with which he may be blessed and having built up a respectable library of personal and family shots, will probably want to invade the field of scenic and "locality" shooting as his next step in collecting pictures possessing more general appeal.

His most natural choice of subjects is likely to fall first on historical and other points of interest in his own city or in nearby public parks and reservations administered by county, state or federal officers, and here our movie maker may hesitate a bit, either from a natural distaste for being the center of attention in crowded city streets or from a vague fear that he may attract the more truculent regard of some suspicious park attendant.

Now Mr. Cinemaker, being a good citizen in no way related to Caspar Milquetoast, is aware that his taxes help to maintain these public places and that these places are his to use and to enjoy within the reasonable limits of public policy. But, not knowing what these limits may be, he may, in all innocence, overstep the allowable bounds in certain cases and in others refrain from shooting where such action is perfectly allowable. As suggested, Mr. Cinemaker is no Timid Soul, creating non existent difficulties, nor is he, on the other hand, possessed of that curious structure of gall and case hardened nerve (plus press pass) which enables the newspaper cameraman to face a curious crowd or an irate caretaker with equal calm. It is to help him steer an untroubled middle course that these notes have been prepared.

To ascertain for amateur movie makers throughout the world all the detailed rules in effect at any particular place would have entailed an amount of research simply impractical in scope. The results would have provided material for a good sized book, which might be years in preparation. Therefore, it was hoped that the rules of the National Park Service, U. S. Department of the Interior, plus those of a few representative states and the regulations established by the Department of Parks of a great city, would serve as a sufficient guide.

Reasonable limits are set in order to be fair to all

Public parks offer movie makers more than scenic beauty

Requests for information on the subject, addressed to the above mentioned departments, have brought prompt and clear replies which enable us to deduce two general principles of procedure for the amateur—principles within the limits of which he may shoot to his heart's content, secure in the knowledge that he is not trespassing on the rights of others.

The first general principle which we deduce is that restrictions against movie making tend to become more and more liberal as one finds himself farther and farther from crowded urban centers. Conversely, movie making in city streets, parks and other city administered spaces and institutions, while recognized as a perfectly legitimate pursuit, does, nevertheless, receive its share of attention in the way of mild restrictions from the city fathers. Thus, the superintendent of parks of New York City quotes the municipal regulations as follows, "No permits are required for the taking of motion pictures by amateurs if Park visitors are not annoyed by the taking of the pictures. Special permission must be obtained if a tripod, flares or flash lights are to be used in conjunction with the camera." This does not apply to the New York Zoological Park, where neither still photography nor movie making is allowed without special permission.

The second general principle evolved from our correspondence is that, because officials, in the main, are glad to cooperate with movie makers, it becomes the duty of everybody making movies in public places to conduct himself in such a manner as to avoid criticism of any kind. Rough and irritating demands for privileges beyond the power of the individual officer to grant serve no immediate purpose and, in the aggregate, operate only to bring a whole movie making fraternity into disrepute and lead finally to more restrictions.

State parks offer excellent opportunities for real scenic shooting and in such a park, in a great Eastern state, the writer once wanted to climb to the top of a huge rock for a shot of a nearby waterfall. The location was outside the guard rails provided at that point, and it was therefore considered advisable to ask permission from a nearby park attendant. On being asked whether there was any objection to or penalty for shooting pictures from the spot in question, he offered no objection and threw in the friendly information that, while there were no penalties, "the State won't bury you if you should fall." Further, he stood guard over camera case and other duffle while the shooting was in progress and, in general, showed a decided interest and willingness to be helpful.

The superintendent of state parks of Connecticut has written as follows, "I can only say that at this date we have not found it necessary to make any

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Edward A. Bollinger, ACL

Ultima Thule

EDWARD A. BOLLINGER, ACL

MANY years ago, Sir Joseph Howe began to meditate on the beauties of the Mayflower Province in Canada. It was his immediate conclusion that the name, Nova Scotia, lacked the romance and historic charm and the flavor of the hospitality and genuineness with which this land was overflowing. Thus, the more appropriate name of Ultima Thule came into being. Freely, one may translate, "the ultimate to be desired."

I doubt very much that Sir Joseph was a movie maker, but in naming the land he gave material for a charming movie title and he accidentally also defined this country's movie possibilities—they are the ultimate to be desired.

A fitting introduction to a picture of this province of many charms is a trip through the Public Gardens at Halifax. Trees and flowers from all parts of the world grace the park. Large leafed palms form a canopy above the graceful swans, gliding over the surface of the small, natural lake. Halifax has many other points of interest, including the ivy clad buildings of Dalhousie University.

Evangeline's Land on the Bay of Fundy, pictured so vividly for us by Longfellow, is still, in many respects, unchanged. A replica of the little chapel in which the exiles were imprisoned and the old original iron cross vividly recall that tragic event. Evangeline's well is on the chapel grounds, which recently have been gardened beautifully. A stone's throw from this spot, the shores of the Basin of Minas have receded a few rods, leaving the old Acadian dykes dry and covered with grass. On some doorsteps, shawled ladies sit contentedly at antique spinning wheels, for here homespuns are still made. Here are human interest, old world charm and scenic beauty, all waiting for the movie camera.

The gem of all fishing villages is Peggy's Cove, situated on the south shore about thirty five miles from Halifax. From the early morning mist, throughout the day to the dusk of evening, the ever changing light offers pictorial beauty for the cine camera. Fishing nets stretched to dry will form a foreground for a view of other cove activities, such as fish nets being boiled in giant kettles, smaller fish being landed, cleaned and pickled, the repair of yawls or the interesting process of killock making. Huge, solid rocks, really gigantic in size, occupy a great percentage of land surface and make gardening almost impossible. In fact, we find artificial gardens and flower beds planted in large boxes filled with imported soil. The sound of the restless surf pounding on the rocks, mingled with the raucous song of busy gulls, is the only break in the continuity of a peaceful day. Scenes of surf and the gulls will also provide cinematic punctuation in a film study of this village. Peggy's Cove is as picturesque as the name suggests. It is one of the few spots in this world unspoiled by the influence of commercial civilization.

The cine paradise of Nova Scotia is ready for filmers

The movie gem of fishing villages is Peggy's Cove

The tuna fish here is a temperamental creature—he may appear and he may not. The best bet for the movie camera is swordfishing. Starting in July off the southern point of Nova Scotia, they run northeast in great schools, following the coast until they reach Cape Breton about the middle of August. Sydney and Glacé Bay are probably the best places to find fishing boats rigged for this type of work. For a small fee, any genial old captain will take you on board (at your own risk). Be prepared with light and heavy filters and supersensitive film, for fog sometimes occupies a good portion of the shooting day. Work for closeups in this picture—hands sharpening harpoons, tying ropes, etc. A two inch lens is ideal for most of these shots. Get the sighter in his perch on the top of the foremast as he sights a fish and gives the signal. The harpooner is in his tiny cage on the very end of the bowsprit. The helmsman slowly makes for the unsuspecting fish that is sun basking on the surface of the water. Suddenly, the fish stirs and is away before the spear leaves the hand of the harpooner. What excitement! All this will happen over again on the next "sighting," but this time a more cautious approach and more precise timing do the trick. Reaction shots of the fishermen's faces should be short but are invaluable in building suspense. Human interest can be added by showing the men washing, eating, singing and stealing a nap during waiting hours.

Every summer in late August, an event takes place which arouses the interest of the entire province—the Guide's Meet at Lake William. It lasts a full week and attracts people from hundreds of miles around. Any North American guide is eligible to enter the various contests, which follow each other from early morning to late at night. For the most part, Nova Scotian guides are of pure Indian blood. This makes competition between them and the few white guides particularly keen. The skill and speed displayed in some events are almost unbelievable. They build a small fire from large blocks of wood and boil a pint of cold water over it in two minutes. In this process, the large blocks are chopped into smaller parts, which in turn are shaved as thin as paper with hunting knives. It takes two or three minutes to chop through a ten inch hemlock log, whereas only six to ten seconds are required to saw through it. A short canoe portage is only a matter of seconds. Log burling and canoe tilting are exciting and, because they take place a distance from the shore, telephotos should be on hand. Walking the greased pole, which increases its bobbing action as the contestant comes closer to the unsupported end, offers untold amusement both to those who attempt it and to those who see the action in your movies.

World champions in various fields also attend the meet and give special exhibitions each day. W. R. Edson established a new record for fly casting, with his toss of one hundred and thirty nine feet. Have you ever caught a human fish on your hook while casting? Edson did,

[Continued on page 317]

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Meter use ■ The chief cause of obtaining inaccurate results with exposure meters of the photocell type is due to the obvious fact that the meter reading must necessarily represent an average of the whole field covered by the instrument, while this exposure setting may not always give the best results for the important part of the scene. A secondary factor is that the meter usually covers a field a little larger than that of the one inch lens used on movie cameras. For these two reasons, it is important to move close to the subject when taking a meter reading. The illustration on this page presents a scene for which it would be easy to get an incorrect reading if this principle were not understood. If the meter were held at some distance from the subjects, it might include the area shown by the large circle. An average of the light in this area would give a fairly high reading because of the large amount of bright sky which would be included. On the other hand, the actual subjects—the boy and the girl—are comparatively dark in general tone and, further, they are side lighted, which gives rather heavy shadows on one side of their faces. Considering this, it would be wise to move closer to them so that the meter field would include only the area represented by the small circle. This could be done simply by holding the meter within a few feet of the subject. If you are standing as you take the reading, tilt the meter slightly downward. Thus, the exposure would be adjusted for the shadow part of the scene and, as a result, the picture would have transparent shadows instead of inky black ones. In still photography, the rule of "exposure for the shadows" is a sterling one and the same idea follows for movies. Always be sure that a meter reading is taken on the most important part of the scene.

Moonlight ■ Nearly every movie maker likes to make a few shots showing what appears to be moonlight dancing on the water. Actually, of course, the "moonlight" is sunlight, and achieving the effect is simply a problem of exposure. It is done usually by selecting the smallest stop on the diaphragm and then adding a fairly heavy filter. For instance, with ordinary panchromatic, it would be necessary to stop down to *f*/16 and use a 4x or heavier filter. Red filters are best, but any other heavy filter will do the trick. In lieu of a filter to cut down the light, the camera may be run at a slow motion speed, which will generally be equal to cutting down about two stops. While, since you must shoot toward the sun, the danger of lens flare is always present, it is not often that it really spoils a "faked" moonlight shot.

Haze elimination ■ As a general rule, it is desirable to eliminate haze when taking black and white pictures, and therefore a yellow or a light red filter should always accompany the camera during hazy weather filming. Color scenes, however, often depend on the blue haze for part of their attractiveness, and most filmers are reluctant to use the special haze filter for Kodachrome because they feel that it will cut out an important part of the scene. This is a matter of personal taste, and no general rule can be laid down. However, the haze filter for color work is helpful when scenes must be made in the shade, as it tends to prevent an excess of blue in the shadows. A little experimenting with this filter, to learn just how it affects pictures under various conditions, is decidedly worth while.

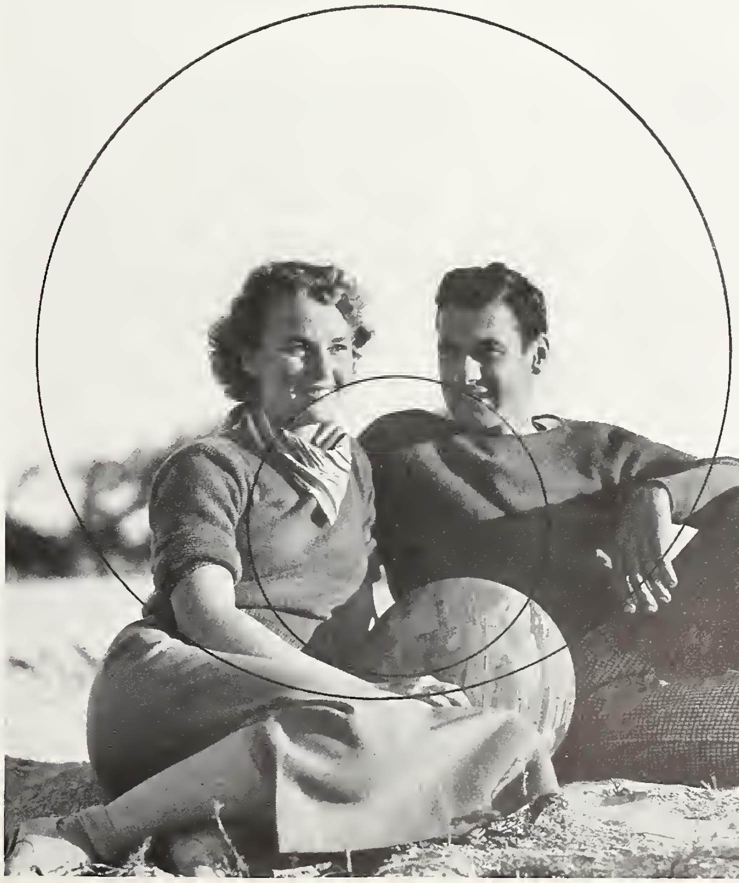
Al fresco screen ■ Few people realize that pictures can be projected very successfully out of doors, even though the evening may seem quite bright. For ordinary pictures, a good screen and a 300 watt projector serve very well, and many a pleasant cine evening may be had in the garden or apartment terrace. It is well to have a special length of rubber covered cable for the purpose, so that the supply of electricity can be carried to a convenient place. Many thousands of library and commercial films are available to supplement the movie maker's own films, and the out of door movie show offers a novelty that not even the Broadway cinema palaces can compete with.

Exposed film ■ Processing laboratories report that a customer's film may be damaged in the laboratory if there is a break in the roll sent to them. There is danger of damage even if the movie maker splices the break himself. If a roll of film has been cut or broken, a note should be enclosed to this effect so that the laboratory men can make a splice that will hold in the processing. It must be remembered that, if a note is enclosed with the film, the package must be sent first class.

Fireworks in color ■ Excellent pictures of large pyrotechnic displays can be secured with color film and a fast lens. Some movie makers increase the effectiveness of such scenes by shooting a fifty foot roll of a fireworks display, rewinding the film in a dark room and then exposing it a second time on [Continued on page 313]

Stand close to the subject in taking readings for shots

Philip D. Gendreau



Magazine Ciné-Kodak

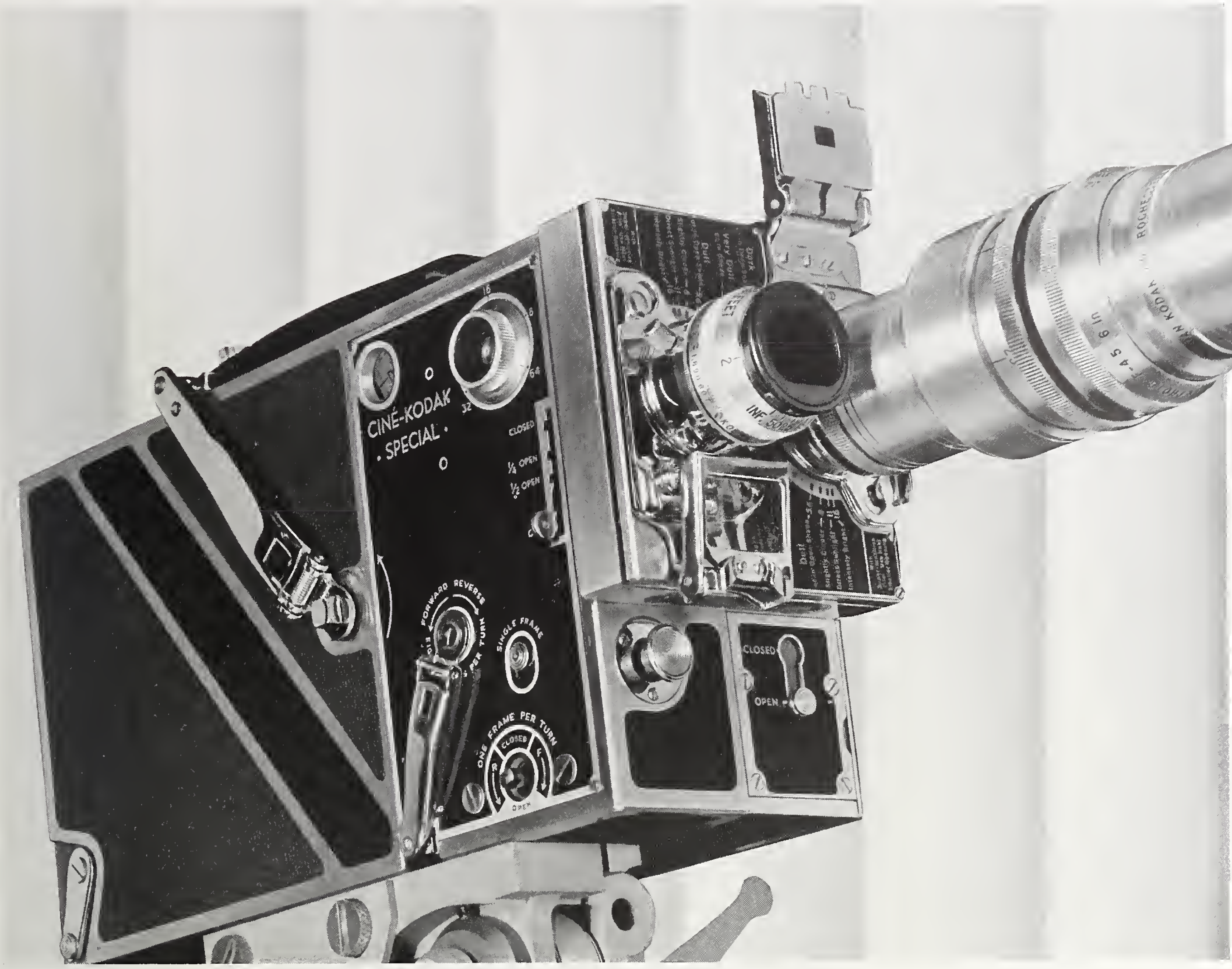
...THOROUGHLY ADEQUATE FOR EVERY HOME MOVIE NEED

THIS pocket-size 16 mm. Ciné-Kodak loads in three seconds with 50-foot magazines of any of four films—Ciné-Kodak Panchromatic, Super Sensitive "Pan," regular Kodachrome, and Kodachrome Type A for artificial light. Wholly or partly exposed, they may be slipped in and out of the camera without the need of wasting even a single frame. Footage indicators on each magazine show the amount of unused film, whether the magazine is in or out of the camera. The camera may be operated at 8, 16, or 64 frames per second, while a tiny button pulses under your fingertip once every twenty frames of film so that you can gauge scene length while your eye is free to follow action in the full-vision eye-level finder.

Magazine Ciné-Kodak is fitted with a Kodak Anastigmat *f*.1.9 lens, interchangeable with any of four telephotos (2-, 3-, 4½-, or 6-inch) by the simplest, most positive method ever devised. The same full-vision, eye-level finder system serves them all—quickly, accurately.

Magazine Ciné-Kodak, including *f*.1.9 lens, is priced at $125; $137.50 with de luxe carrying case.

Eastman Kodak Com



Ciné-Kodak Special

. . . CAPABLE OF THE MOST ADVANCED CINEMATIC EFFECTS

CINÉ-KODAK Special, as supplied, contains a host of exclusive and unique picture-making refinements: ground-glass focusing with all focal length lenses, adjustable-opening shutter, reverse take-up, mask slot between lens and film, revolving lens turret, interchangeable 100- and 200-foot film chambers with individual footage indicators, taking speeds from 8 to 64 frames per second, individual-foot meter, single-frame counter, single-frame release button, one- and eight-frame hand cranks for forward or reverse film winding, long-running spring motor.

Still further versatility is achieved with the several accessories available: tripod, tripod truck, masks of any desired design, six interchangeable lenses ranging from 15 mm. wide angle to 6-inch telephoto, lens extension tube outfit for filming objects as small as .047 inches in width, electric motor drive, electric release control outfit, remote control outfit, reflex finder-image magnifier.

Here, obviously, is the outstanding 16 mm. camera. See it at leading Ciné-Kodak dealers' —or write Rochester for descriptive literature.

ny, Rochester, N. Y.

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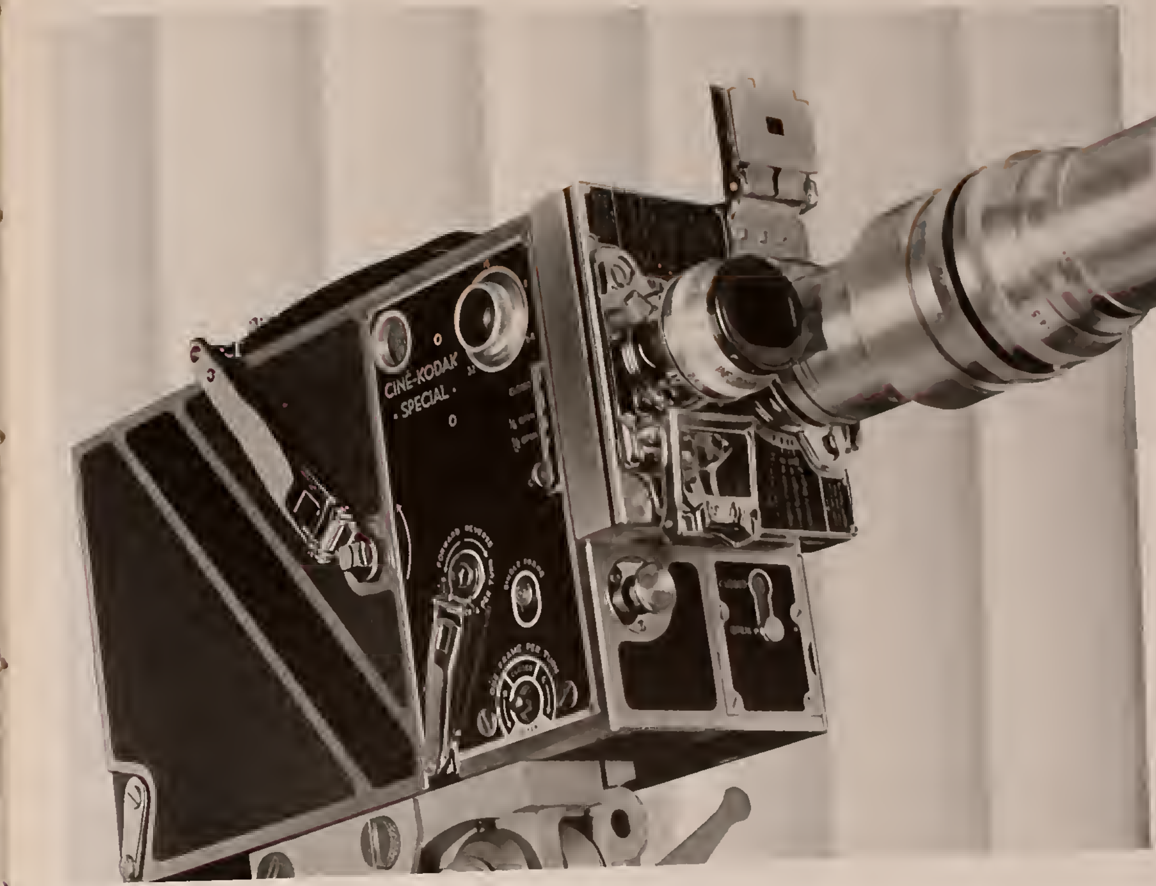

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Eastman Kodak Company, Rochester, N. Y.

Rockville Cinema Club on the set for "Broadway Interlude"

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Hartford carries on ■ At a late meeting of the Hartford Cinema Club, the recently completed film, *Memories of Hiram Percy Maxim*, was featured on a program of members' and guest films. This 150 foot, 16mm. subject is a compilation from the work of numerous Hartford movie makers, edited by Arthur A. Hebert, jr., ACL, under the direction of W. R. C. Corson, ACL. A copy will be made available to amateur movie clubs by the League through its Club Film Library. Other pictures presented at this meeting were *Sweden, Land of the Midnight Sun*, by K. T. Kostich, ACL; *Mr. Motorboat's Last Stand*, by John Flory, both from the Club Library; *Caribbean Shots*, by Newton Brainard, ACL; *37.5*, a compilation of New England flood scenes, by Edmund Zacher, II, ACL, and Mr. Hebert. Outstanding among the reels screened at an earlier meeting were *Another Day* and *Fishers of Grande Anse*, both by Leslie Thatcher, ACL, of Toronto, and *Winter Olympics 1936*, by William C. Goeben, ACL, of the Hartford club.

Helps hospital ■ In Cape Town, South Africa, the Cape Cine League, ACL, has given a special screening of 16mm. films open to the public in support of the drive for funds carried on by the government for the equipment of the great new Groot Schuur Hospital. More than two hundred attended an elaborate program which realized quite a fair contribution for the fund, according to Ralph H. Campbell, secretary. Featured in the presentation was the one reel, 16mm. film, *They Labor For Love*, a documentary and publicity picture pointing out the great need for such a hospital in Cape Town, specially produced by Ainslie Beckett and Mr. Campbell for this screening and the fund drive. Other films presented were *Cape Cine Newsreel, Symphony of the Cape, Best Impressions, Penguin Patrol, From One till Two, Animal Kingdom, You are my Fiance, Legend.* At the late annual meeting of this active group, new officers were elected as follows: Harry Pegram, president; Mr. Beckett and Comper Gray, vicepresidents; Ross Arnold, treasurer, Mr. Campbell, secretary; Lewis Lewis, ACL, assistant secretary.

Boston scores ■ Packing the Palm Room of the Hotel Lenox to the doors, the Boston Cinamateur Club recently presented R. Merwin Horn, of the physics department of Massachusetts Institute of Technology, in a thoroughgoing discussion and demonstration of ultra slow motion photography as carried on by that institute. Mr. Horn described the steps of research and experiment which led to the final achievement of movie making at exposures of one one-thousandth of a second as a basic speed. He illustrated his points throughout with slides and working equipment and climaxed his demonstration with a screening of films made in this way, films described in a past number of Movie Makers by the late Hiram Percy Maxim, under the *nom de plume*, Dr. Kinema. On the same program, Arthur Harrington, of the Massachusetts Department of Public Health, screened three reels of 16mm. film on New England flood conditions.

Films for S. I. ■ Recent meetings of the Staten Island Cinema Club have featured a screening of members' films and a discussion by James W. Moore, ACL, League club consultant, on suggested club activities. Among the films presented at late meetings are *Yellowstone Wonderland* and *Adirondack Adventure*, by Frank Gunnell, ACL; *Our Trip to Bermuda*, by Fred Forde; *The Launching of the Few*, by Ernest Herbert, ACL; and unidentified films by Frederick Wohlker and Herman Andresen, ACL.

Terry tells all ■ Paul Terry, veteran animator and artist of Twentieth Century Films, outlined in considerable detail the production of a modern cartoon comedy at a late meeting of the Metropolitan Motion Picture Club, in New York City. Each step of the intricate process, from the selection of the simple story to the final synchronization of its thousands of movements with music and sound, was mentioned by Mr. Terry in a discussion which was reported as unusually interesting and helpful. *By Highway to Mexico*, a three reel record film by Charles Coles, and a film on birds, insects and flowers, by Hermann Danz, ACL, concluded this program. At a later meeting, Duncan MacD. Little, ACL, discussed and demonstrated his findings in the art of scoring standard recorded music with films. Walter Mills, ACL, heads a recently appointed committee on nominations for vacancies on the board of directors and will be aided by W. R. Lundry, ACL, and Peter Hughes.

New in Utah ■ Recently organized, the Utah Amateur Movie Club is already serving more than twenty five enthusiastic movie makers in the Salt Lake City community. Dr. S. Kenneth Robbins, ACL, is first president, with Riley Hess, ACL, serving with him as vicepresident and R. Leroy Fletcher as secretary treasurer. Four standing committees have been appointed and a constitution has been drawn up and adopted. Meetings are held on alternate Mondays. Featured on recent programs have been a discussion and demonstration of interior lighting, by Joe Shurtleff, and a lecture and demonstration of title making. Among the members' films screened have been *October Byways*, by L. Clyde Anderson; *Seagull Fame*, by Mr. Hess; *Sir Malcolm Campbell's Famous Run*, by George Waters and Mr. Anderson; *Provo Canyon*, by Dr. R. E. Kuhe; *Christmas 1934* and *Vacation in California*, by Dr. Robbins. *Fishers of Grande Anse*, by Leslie Thatcher, ACL, from

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Cine peeves

EPES W. SARGENT, ACL

Veteran lists his chief objections culled from friends

"THERE ought to be a law," proclaimed Wilkins from the far end of the table.

"Sure there ought," encouraged Jim Cary. "I've got a couple, too. What's yours?"

"Harvey's Jumping Jack Newsreels," elucidated Wilkins. "I had to sit through two of them last night."

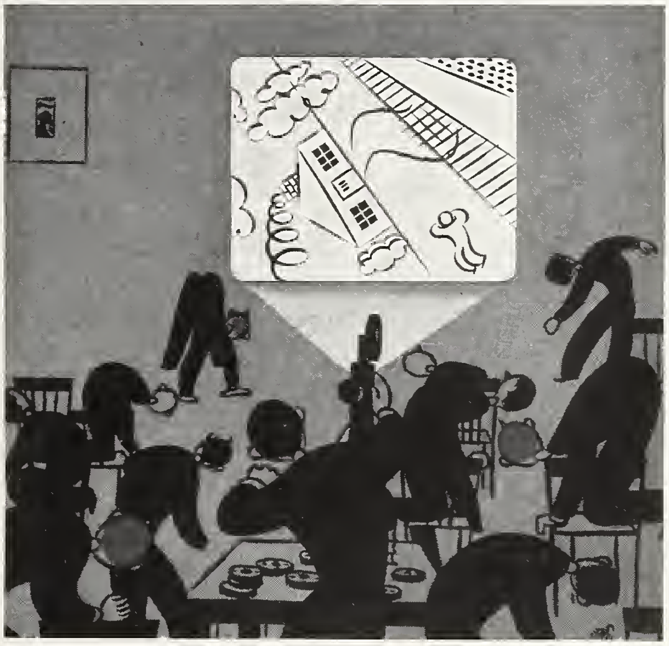
"What do you mean—jumping jack?" demanded Billy Campbell, who did not know Harvey.

"Ever see one of those outlines the doctor makes of your pulse beat when he is giving you the hundred dollar workout? Well, Harvey's newsreel shots are like that. They have their ups and downs."

"He has a yen for panoraming," explained Cary, who saw that Campbell did not quite get the idea. "He can't make a scenic unless he waves the camera like a soap box orator shaking the grand old flag trying to convince the corner cop he's a patriot. The result is that the picture on the screen jiggles up and down. There's a headache in every foot —and too many feet."

"He just does not realize." This came from Barton Cline, the one man at the table who owned a camera. "The panoramas interest him. He does not seem to realize that it is possible to get the same effect with several short clips, each covering part of the ground covered by the panorama. In that way, you can get steadiness as well as a comprehensive coverage."

"The only coverage I could suggest would be capping the lens," offered Wilkins.



Impressions of a guest seeing films of an angle maniac

"Too drastic," objected Cline. "At that. I've seen worse effects. Take Peter Darnley, for example. His big craze is his relatives. He will lure you into his library and show you hundreds of feet of people you never saw and hope you never meet. Intimate shots should be kept for private viewing. Only pictorial and general interest subjects should be shown the casual spectator."

"Their best friends should tell them," argued Campbell.

"You have been reading those halitosis ads," objected Cline. "I have argued, cussed and threatened, but I guess the amateur cameraman is not alone in his belief that the only interesting things are those which interest him."

"Somebody should give Ike Sistrom the works," broke in Claude Pyfrom. "Ike has had a camera eight years and the only time he uses his splicer is when he joins a new piece to the old. When the film comes back, he splices it to the last shipment until he fills a reel. Then he starts a new one. Sort of from the factory to the consumer direct proposition."

"The pity of it is that he has some wonderful shots. He could win prizes with his marine subjects. He has about 400 feet of the prettiest sea shots you ever saw, but it takes him about two hours to show it because it is on about thirty reels."

"You can't put 400 feet on thirty reels," objected Cline.

"Ike does," insisted Pyfrom. "Ike takes a reel, spins it down to what he wants to show, winds back and reaches for another reel. So it goes."

"No titles?" from Cline.

"Nary a title. One of his fanciest subjects is about fifty feet of surf on the rocks. Boy! It's wonderful! And he's got it on a reel between a fifteen foot shot that he caught going to the beach and twenty feet of a farmer tinkering over an old auto."

"That is an extreme case," put in Cline. "And there is no real excuse for it. Just plain laziness."

"Criminal laziness," amended Wilkins. "Sistrom has the makings of a dozen reels, 200 to 400 feet each. If he would take them out of the hash, dress them up with titles and edit them carefully, he would be the talk of the town, but as it is the delays and lost motion kill the appreciation."

"I know a guy something like him," offered Campbell. "He is what you might call a progressive. He is photographing serials. He has one reel for his wife, one for the house, one for the garden and one for the dog. When he gets film back from the laboratory, he cuts it up and adds it to the proper reel, like a man using a filing cabinet. He makes no continuity. Just adds and adds. You go to see him and out comes the projector. Then the conversation goes something like this:

" 'Let's see. What did you see of Addie last? Did I show the one of her watering the lawn? I did? Well, how about her sitting in the wicker chair in the garden? Saw that too? Well, did you see her lighting her cigarette? Good, we'll start there.' Then he runs down to the end of the reel and on to the next subject with the same cross questioning."

"That should be laboratory stuff," ruled Cline. "He should hold the stuff privately, until he has enough to make a fresh reel, and edit it up before showing it. Then he would be more likely to make new shots that could be edited into an interesting picture. For example, Battersby makes a series of shots, edits them roughly and then takes scenes specially designed to fill in the continuity. When he shows finished pictures to his friends, they all marvel that they are so well balanced. It's because he figures out what he needs to get that balance and then films it. He never shows anything publicly until he feels that the reel is as complete as possible. He has certain clips he wants to show, but he

[Continued on page 308]

News of the industry

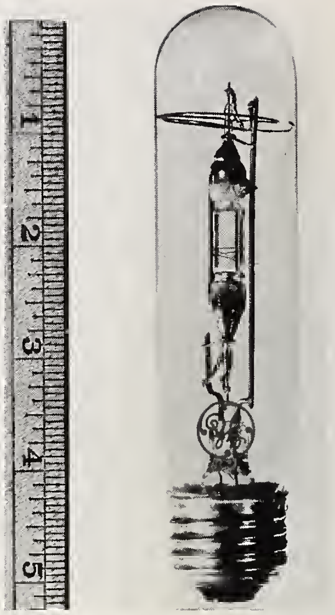
RUSSELL C. HOLSLAG, ACL

Bass scoops in sound ■ The entire stock of RCA 16mm. sound cameras recently has been acquired by the Bass Camera Company, 179 West Madison Street, Chicago, and is being offered to the amateur at reduced prices. According to Charles Bass, president, the Bass Camera Company will take over the world distributorship of this apparatus, which includes: the Newsreel Camera, with incorporated acoustic microphone; the Studio Attachment, by means of which sound may be picked up at a distance; the Critical Focuser attachment, lenses, cases and other accessories. The RCA camera, which is the basic unit of the system, is provided with a turret for three lenses, has a simplified threading arrangement and is effective either for sound or silent pictures, as it will run both single or double perforated film, either at 16 or 24 speed. The Newsreel model enables the sound to be added in the form of a commentary on the part of the operator, while the Studio attachment enables one to record music and sounds coming from the scene being filmed. The availability of a well made and nationally marketed sound apparatus at reduced prices will provide a new opportunity for those who wish to make 16mm. sound pictures.

Intensified light source ■ A new type of mercury vapor lamp, having characteristics which may prove important in the cinema field, has been developed by the General Electric Vapor Lamp Company, Hoboken, N. J. The outstanding feature of the new lamp is the tremendous light emission concentrated in a small area, the actual light source being a column of mercury vapor less than an inch long, sealed within a quartz tube. This, in turn, is mounted inside a standard T-10 bulb of the tubular type used in projection lamps, five and one half inches long and one and one fourth inches in diameter, equipped with a standard screw base. The power rating is eighty five watts and the light output is said to be 3,000 lumens, providing an unusually high unit brightness for the current consumed. The lamp operates in conjunction with a small ballasting transformer on regular alternating current circuits. The light emitted is in the blue and violet region of the spectrum, although some red is stated to be present. This light is typical of the mercury vapor lamp and possesses highly actinic photographic qualities. The actual light output is said to be approximately that of a 200 watt projection lamp, which demonstrates the high efficiency of the new bulb, burning at eighty five watts only. It is not difficult to speculate upon the possible uses of the new bulb in the photographic and motion picture fields. The very small source of light will be extremely valuable in solving problems of design in projection and other optical systems, while the relatively low current consumption should enable the cameraman to provide greatly increased interior lighting without the necessity for installing special power lines. Many practical applications along these lines undoubtedly will be developed, which the cinematic field will await with interest.

Color titles ■ A new line of titles, specifically intended for use with Kodachrome or other color film, has been developed by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. These are to be known as Titlecraft color titles and are available in either 8mm. or 16mm. They will be provided in four different tones: blue, with overtones of purple and pink and pale pink letters; brown, with yellow letters and orange overtones; dark green, with gold overtones and pale gold letters; brown, with pale green letters and green overtones. Thus, titles may be ordered with color tones which fit the color characteristics of the sequences they serve. Full information and lettering styles may be had from the makers or from Bell & Howell dealers.

Answers the query "What's new?" for amateur and dealer



General Electric Vapor Lamp Co.

New mercury vapor lamp which may be aid in cine field

Kin-O-Lux No. 3 ■ A new supersensitive panchromatic reversal film recently has been placed on the market by Kin-O-Lux, Inc., 105 West 40th Street, New York City. The new emulsion is said to be especially well balanced for correct color rendition in terms of black and white, so that, under ordinary conditions, no filter is needed for giving color balance. The emulsion is also well suited to making effective pictures by artificial light. The new film is available in fifty or 100 foot daylight loading spools.

Stamp-O-Title ■ A clever device to aid in making titles on reversal film—black and white or color—is the Stamp-O-Title outfit, made by Wonder Fluid Company, 41 Union Square, New York City. The titles are printed with a stamp pad and rubber type. The pad, however, is saturated with a special solution known as Wonder Fluid, and the titles are printed in this medium. After printing, the impression is dusted over with gold or silver powder provided with the outfit. After the excess powder is shaken off, the letters are impressed neatly in silver or gold against the background. A black background is provided for reversal film and a colored one for color titles. In addition, there is also a transparent ground, which makes it possible to superimpose the titles over any photograph or pattern available.

Haile features slitter ■ Distribution of the Baia double eight millimeter film slitter has recently been undertaken by J. C. Haile & Sons, 215 Walnut Street, Cincinnati, Ohio. This little accessory is an extremely ingenious and well made instrument, by means of which any double eight millimeter positive film may be quickly and effectively slit into 8mm., ready for projection.

Stereoscopic 16mm. ■ An interesting application of the properties of Polaroid, the new sheet polarizing medium manufactured by the Polaroid Corporation, 168 Dartmouth Street, Boston, Mass., was shown in New York at a recent meeting

[Continued on page 319]

When light is filtered

[Continued from page 287]

of certain colors can be used over the camera lens to absorb certain rays of light and transmit others.

The filter familiar to most of us is the medium yellow filter which we use with panchromatic film. If we glance back to Chart F, we will again note that, while panchromatic film is sensitive in the red and green, it is still more sensitive in the blue and violet region, causing overexposure of sky or other objects colored blue. If a light yellow filter is used over the camera lens, it will cut or absorb a portion of the blue and violet light, reducing the film's response to that color. See top dotted line on Chart F in blue violet region. If a stronger or medium yellow is used, it will absorb more of the blue violet light and proportionately reduce the effective exposure in that region to the center dotted line in Chart F. To obtain full color correction, or true monochromatic values, it is necessary to use a fairly heavy yellow filter, the absorption of which might be represented by the bottom dotted line in Chart F. If overcorrection is desired, it can be obtained by using an orange, a Wratten "G" filter or a red filter, the "A" of the Wratten tricolor series, which absorbs nearly all the blue. The "A" is often used for marine photography to make the blue sky and water photograph dark gray or black and to add contrast to white sails or boats. It is also used to film cloud effects and to obtain night or moonlight effects.

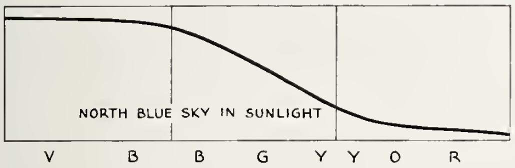


CHART C

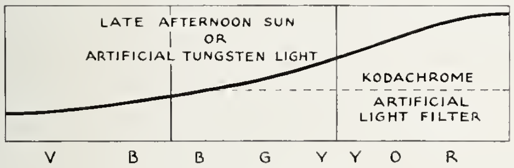
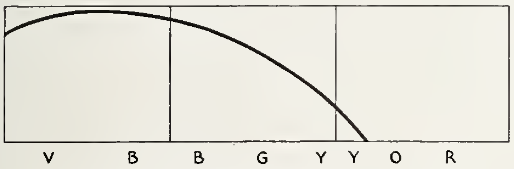
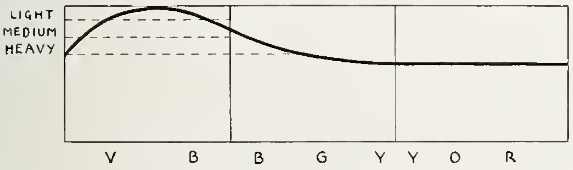


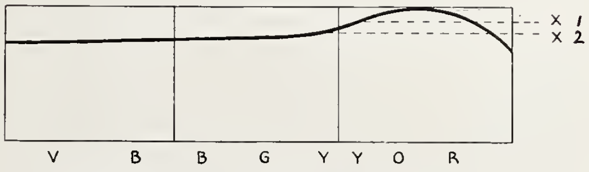
CHART D



EARLY TYPE ORTHOCHROMATIC FILM
CHART E



PANCHROMATIC DAYLIGHT
CHART F



SUPER SENSITIVE PANCHROMATIC
TO TUNGSTEN LIGHT
CHART G

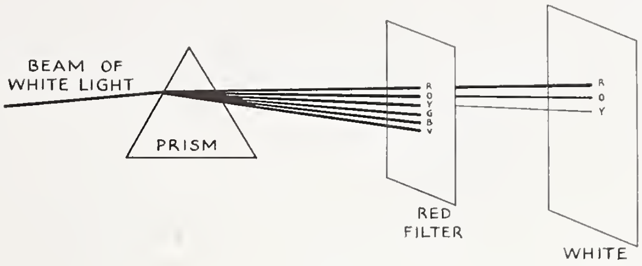
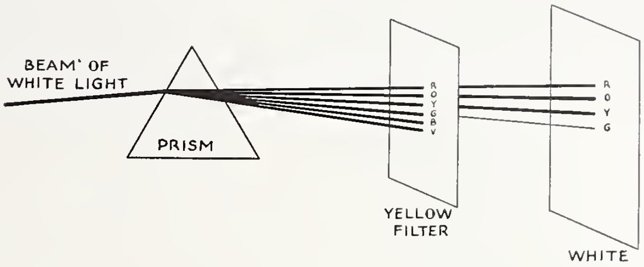


FIG. V



VI

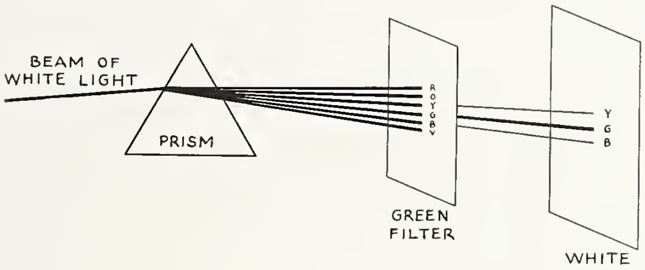
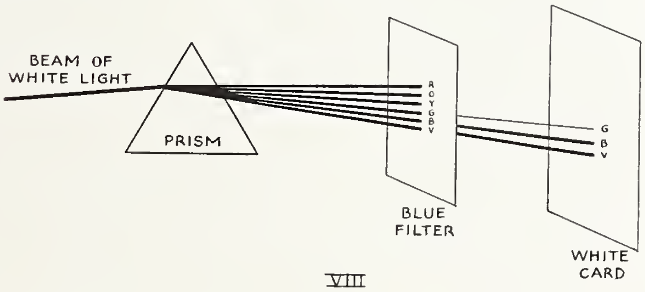


FIG. VII



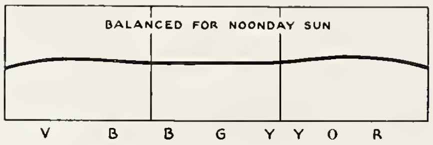
VIII

Let us refer to the curve of supersensitive film exposed to artificial tungsten light, shown in Chart G. Here we have almost the reverse condition to that of panchromatic film exposed to daylight. It is easy to see here that reddish or pinkish flesh tints will be relatively overexposed. The lips of a person would photograph with the same degree of density as the rest of the flesh tones. In order to obtain true monochromatic rendition on supersensitive film, it is necessary to use a filter which will absorb some of the red rays. The proper filter for this purpose is the "B" of the Wratten tricolor series. However, for amateur motion picture work, the Wratten "X1" and an "X2" have been made available. The top dotted line on Chart G represents the approximate amount of absorption by the "X1" and the lower dotted line the approximate absorption by the "X2".

This more or less covers the fundamental action of filters with the popular types of 16mm. film in general use.

Let us now leave black and white films and filters for a moment and consider Kodachrome film. All color processes can be classified into two groups; namely, additive processes and subtractive processes. Both types of processes depend upon the division of light into three components—red, green and blue violet.

The six basic colors of the spectrum can be arranged in three general groups; the violet and part of the blue in one group; the remainder of the blue and green and part of the yellow in a second group; the remainder of the yellow, the orange and the red in another group. (See Chart A.) In this way, we have a blue violet region, a green region and an orange red region. These three general groups have been indicated in the charts A to I inclusive. These groups are usually referred to as red, green and blue violet.



KODACHROME FILM
CHART H

Kodachrome is a subtractive process. The color separations are made in an unusual manner, within the depth of the emulsion. To accomplish this, the film is coated five times, and Kodachrome film resembles a three layer cake, having three coatings of emulsion and two of gelatin. The gelatin coatings are placed between the first and second and between the second and third layers of emulsion, as the frosting on a cake. The gelatin coatings act as small fences and keep the emulsion sensitizers from straying away from their proper places.

Each coating or layer of emulsion is selectively sensitized. The bottom coating next to the film base is red sensitive, the center coating is green sensitive and the top layer is sensitive to blue violet. All five coatings combined are no greater in thickness than the black and white 16mm. film.

When an image is focused upon Kodachrome film, some part of the picture is formed in each of the three layers, depending upon the colors of the subject. Red colored objects in the picture are recorded by the bottom red sensitive layer, green colored objects by the center green sensitive layer, etc. After the film is processed by the reversal process, each layer is dyed with colors complementary to the film's original sensitivity. The bottom or red sensitive layer is dyed blue green, the center or green sensitive layer is dyed magenta and the top or blue violet sensitive layer is dyed yellow. This method reproduces the colors of the original subject.

It is obvious from the data I have given that film can be made for practically any purpose and of varying degrees of sensitivity in any of the spectral color regions. Therefore, since most outdoor color pictures are made between nine in the morning and four in the afternoon and with sunlight, it follows that a color film, to be commercially practical, would have to be made to match the sun's spectrum for these hours of the day. Kodachrome film is balanced for noonday sunlight, the type of light shown in Chart B. Therefore, Kodachrome film is no more sensitive to blue or violet than to red, yellow or green. Kodachrome film might be represented by Chart H.

If you compare Chart H with Chart C, you can easily see why pictures made with the light from a north sky or on a cloudy overcast day, even though correctly exposed, might appear bluish on projection.

Now compare Chart H with Chart D, and it is easy to see why Kodachrome pictures made in the late afternoon or early morning sun appear too reddish on projection or why pictures made with artificial tungsten light appear too reddish unless a blue compensating filter is used. The blue Photoflood filter, recommended for use when pictures are made with flood bulbs and on regular Kodachrome, absorbs in the red area of the radiant energy curve (as shown in tungsten Chart D) in an attempt to bring the curve for the Photoflood light to balance that of the Kodachrome emulsion. Note the dotted line in Chart D.

It can now also easily be understood why reflection of the blue sky in water or on an automobile can change the color of the object sufficiently to throw it off balance and produce what appears to be false color rendition.

With Kodachrome film, there are only two filters used for color correction—the Kodachrome artificial light filter, already explained, and the Kodachrome haze filter. (Note: the new Kodachrome for interior filming does not require the artificial light filter.)

The haze filter is really not a haze filter in the ordinary sense but an ultra violet light absorbing filter.

If there is strong aerial haze, smoke, fog or other cloudy vapor in the air, the use of the haze filter will not make any appreciable improvement. However, in the tropics, on an ocean voyage, in high altitudes, on cloudy overcast days or in making pictures from an airplane, the haze filter does produce an improvement in color quality.

Some photographers leave the haze filter on their camera lens for all out of door pictures, some use it occasionally and others not at all. Its use is somewhat a matter of personal taste.

Another important element is the personal factor or the response of the human eye to the colors of the spectrum. For average people with normal vision, the visual response curve is something as shown in Chart I.

The normal human eye is much more sensitive to green light than to other colors. This is demonstrated to photographers by the fact that panchromatic film can be developed by green light but not by red without fogging the film, although the film is equally sensitive to both colors. The human eye is so much more sensitive to green that the average person can see well enough to develop film with a quantity of green light so small that it does not cause photographic fog in the time required for development.

By comparing Chart I with Chart H, it is easy to see that a subject containing a number of green tones—grass, trees, etc.—would appear bright to the eye, from which one might assume a lens diaphragm stop of *f*/11 or *f*/16, but, since the Kodachrome film is no more sensitive to green than to red or blue, the greens in the resultant pictures would appear too dark, or underexposed.

Many persons are color blind. Scientists say that the proportion is about one in every ten and that there are more color blind men than women. The personal color curve between individuals could vary as much as the difference between the sensitivity curves of orthochromatic and supersensitive film.

Another factor worthy of mentioning, perhaps, is the projection of Kodachrome films. The lamp used in the projector when operated at its rated voltage has a definite spectral curve, which would be fairly close to the curve shown in Chart B. The dyes used in coloring Kodachrome pictures are made to match the light curve of the projection lamp, just as the color sensitivity of Kodachrome film is made to match the color curve of the noonday sun.

When a projection lamp is burning at a temperature lower than that produced by its rated voltage, the resultant light becomes more reddish. Also, when a lamp becomes badly blackened from use, the quality of the light is redder.

Both of the above conditions could cause a perfect color film to appear too red on projection. It is therefore advisable to check the line voltage, also the condition of your projection lamp from time to time, particularly if your pictures appear too red on projection.

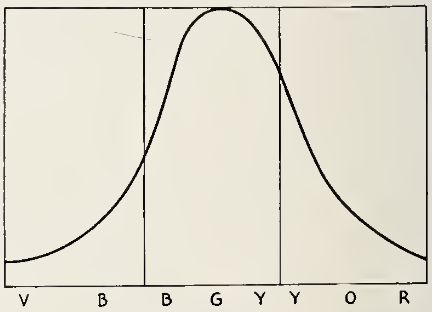


CHART I
NORMAL VISUAL SENSITIVITY CURVE

Many color enthusiasts try to project a picture much too large for the wattage of the lamp used. This also results in yellowish pictures, which of course destroys the quality of the greens and blues.

Pictures must be projected on either a pure white or silver screen. Any screen having a dominant hue of color will effect the final projected results. Some types of screens turn yellowish brown with age and are not satisfactory for the projection of color pictures. Many use an ordinary window shade for a projection screen. While this may be satisfactory for black and white pictures, it will never do for color films.

While we all have much to learn about light, colors and filters, there is much more to be learned about our own personal reactions to them.

What lies ahead

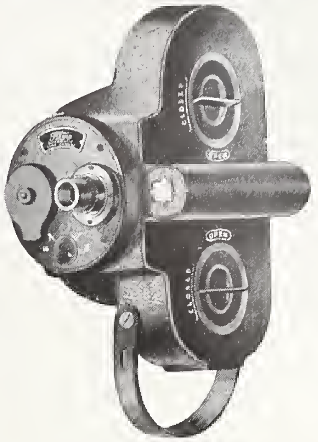
[Continued from page 285]

itions and categories that would limit the scope of personal movie making. Not only is this attitude justified philosophically, but it has been seen to be a practical necessity because of the manifold uses to which individual cinematography has been put. This freedom must constantly be a deep concern of the Amateur Cinema League.

Our first duty is to give to personal filmers the information, the advice and the aid, in such form as they best can use it, that will enable them to make better movies. This practical service must be individual and in as much detail as the League's means will permit. Upon this service has been built our reputation and from it has come the confidence we enjoy from the world of movie makers. It has been, and should continue to be, the bedrock of our structure. If we give honest value in this, we justify our existence, even if we do nothing else.

Because the League believes in the exceedingly rich future of the eighth art, it must stimulate, encourage and give continual thought to those experimental workers who try to push out further the confines of this medium of expression. These men and women will always be finding new paths that may seem to many of us unprofitable. But they are the explorers who will add new territory to the most important artistic fact since the days of Aristotle—the addition of a new art to the traditional seven. We must serve them, we must be sympathetic to their discontent with what is and we must not confront them with predetermined canons of film esthetics.

This is a practical world, and modern men do not cut sharp limitations between what is useful and what is decorative. The useful and the ornamental merge into the serviceable and both make life better. We are all intensely aware of the speed with which industry, science and education have seized upon personal movies, that came into being as a recreational facility. There is nothing here to cause concern to the Amateur Cinema League. Rather, do we find an opportunity for greater service, since ours is literally a service organization, in the most practical sense. Our members are not only those who use movies recreationally; we have an increasing number of filmers whose employment of



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the medium is predominantly practical. We must give them the help to which their membership entitles them. That industry should turn elsewhere for aid in using cinematography would mean that the Amateur Cinema League had failed to grasp an opportunity.

If this new medium of expression is to have the future we believe lies ahead of it, it must, like the other arts, become a part of the educational process. The League should be instant to respond to any calls from universities, colleges and secondary schools for help in setting up either formal courses or extra curricular activities in movie making. More than that, it should present to these educational institutions the importance of including movie making in the cultural preparation for living to which they are devoted.

To take a long view of what the Amateur Cinema League may do is to see that the whole field of non theatrical filming is of interest to us. With steady loyalty to our first task, the service of individual filmers, we must be ready to meet reasonable demands that come from this field. In meeting these demands, we must have a clear idea of our basic functions and must fit our actions to our resources. But we must not have closed minds.

These I see as the aims and policies of the Amateur Cinema League. We have, to carry them out, a very capable equipment. Our information service reaches widest. Through MOVIE MAKERS we cover a broader group than our membership and, in our magazine, we have a property whose earning power makes possible our wider service. It is respected everywhere. Our basic text, *Making Better Movies*, serves members who do not avail themselves of all the other League aids. Our bulletins and occasional publications meet more special needs. These are all impersonal, but they cover a large territory. Our individual services are experienced and highly capable, as every member knows who has corresponded or consulted with our technical, continuity and club departments. It is often said that an annual membership fee brings five or ten times the amount of service that was expected from it. This is the rich heart of the League.

I think that we should face the possibility of having to set up a special new service for industrial concerns that wish to use films extensively. This we could either create and then present, with proper salesmanship, or be prepared to give, if the demand increases. The Board of Directors has been studying this problem for some time and will, I am sure, continue to consider it.

The Amateur Cinema League is a non commercial enterprise, without stockholders, and it does not provide earnings or profits for anybody. Its funds are devoted exclusively to its service task. By prudent financial management, the League is possessed of modest resources that have been safeguarded to insure its future. That we have weathered without losses a depression comparable to none of which the world has record is a cause for satisfaction. Our resources should be kept at a figure consistent with continued protection. If they grow beyond that figure, they should be employed to set up wider services and to secure the staff and facilities necessary to do this.

The Amateur Cinema League has a record of honest service practically given. We have had clean cut policies, we have avoided "frills," and we have extended cautiously but definitely into new fields when they seemed essential. It is my hope, in the office with which I have been honored, to keep our policies clear, our conduct in harmony with common sense and our outreaches into new activities careful but also definite. To these ends, if they meet your approval, I ask your patience, your encouragement and your cooperation.

Park film rules

[Continued from page 295]

regulations on this point. Until the occasion develops that makes such action necessary, motion picture taking is in the same class with the sport of photography in general, a pleasure to be enjoyed by State Park visitors with due consideration for 'the other fellow' also on pleasure bent."

So far as nationally administered areas are concerned, there seems to be no restriction against the use of motion picture cameras therein by amateurs. Order No. 919-A of the U. S. Department of the Interior, under date of April 16, 1935, covers the matter briefly but fully in this way, "Still and motion picture cameras may be freely used by amateurs in the areas administered by the bureaus of this Department for general scenic purposes."

Practically all regulations relating to the proper use of public reservations have something to say about giving gratuities to attendants. This advice, simply stated, is "don't."

Should our movie maker decide that his library will not be complete without some shots of military or naval establishments, the situation is entirely different. In some cases, the areas are well supplied with placards prohibiting photography of any kind, and from these orders there is, quite properly, no appeal. If, on the other hand, there is nothing to indicate whether or not pictures may be taken, one should apply for permission directly to the commanding officer of the reservation, whose decision in the matter is final. Specific information, however, has been obtained from the superintendents of America's two great service academies—Annapolis and West Point. In a letter directed by the superintendent of the United States Military Academy, it is stated that "there are no objections to visitors to Academy bringing with them their amateur motion picture cameras, but the use of tripods is prohibited." In a printed guide for visitors furnished by the superintendent of the United States Naval Academy, it is stated that "Visitors may take photographs of the grounds and exterior views of buildings, but no interior views are permitted, nor can photographs be taken for commercial purposes." Copies of this guide and of a similar leaflet issued for visitors to West Point may be had by League members on application to the League headquarters. On a related subject, the estate of George Washington, at Mount Vernon, the superintendent of that establishment reports that "the only restrictions on picture taking are that no photographing of the interiors of buildings is allowed nor the publishing for sale of any views of Mount Vernon." Outside of the United States, photography of any sort in or even near military establishments should not be attempted without careful preliminary investigation. In certain countries, even a preliminary investigation might subject the movie maker to suspicions that he would prefer to avoid.

If there is any doubt as to restrictions in specific places in any city or state of the United States, one may address an inquiry to the Department of Parks of the particular city or state involved, with the asssurance that he will receive a prompt, courteous and detailed reply.

In general, the amateur may take pictures freely in all public places and, if he continues to exercise his own rights in such a manner as to conserve the comfort and convenience of all others with whom these rights are shared, we shall all continue to enjoy practically unrestricted amateur movie making in such public places.

Using desert light

[Continued from page 288]

Where the air is so clear that objects many miles distant may be filmed with startling clarity, there is a temptation to make too many of these extreme long shots. A few at the beginning of your film will establish the sense of vastness and loneliness. Too many will cause a sense of remoteness, with consequent loss of perspective. Always stay close to your subject.

In order to do any extensive filming on the desert without undue discomfort, our advice is not to burden yourself with a lot of equipment. At most times, and always during the summer, the thermometer soars to fantastic heights, making every additional pound carried just so much more grief. Our own desert outfit consisted of merely the camera and a light, folding tripod, the whole weighing under ten pounds. A tripod is practically indispensable, since the wind blows more or less constantly, and it is no easy matter to steady a camera with a small gale buffeting you while the temperature is up around 120!

A tripod also will enable you to get shots of desert roads through the windows of a railroad car or the windshield of the automobile or motor bus. Incidentally, we found bus drivers a fertile source of information concerning interesting spots along the way. In several instances, we got excellent results while the bus was in motion. Such shots must be used sparingly, however, and only should be made when the least possible vibration is in evidence. The camera must be on a tripod and not held in the hands.

Apparently, if you use a one inch lens, you may safely forget about heat distortion. If there was any, it failed to appear in the finished film, and we crossed during the hottest time of the year. Unlike tropical heat, desert heat is extremely dry; there is absolutely no humidity except in irrigated sections. We found that our film, even after ten days or more, was unaffected, although perhaps it was a little dryer. It is well, however, when loading the camera, to select a spot sheltered from the wind, against the possibility of sand lodging in the camera to cause scratches on the film or damage to the mechanism. We were always careful to clean the camera gate at every opportunity.

Because, as mentioned before, there is so much red in a desert landscape, some movie makers may prefer to use an orthochromatic film in order to make reds appear dark. Of course, it goes without saying that orthochromatic film makes red filters taboo.

No two persons get the same reaction from the desert, so it is pretty difficult to suggest what to film. In the final analysis, you yourself must be the judge. The Southwest is so vast and so varied that one is at first oppressed by a sense of inability to capture at all the spirit of it. Yet a few carefully chosen shots will accomplish much. A long vista across arid wastes to a distant mountain range, a rope cactus silhouetted against the evening sky, some bleak cabin surrounded by mesquite and sand —any or all of these will symbolize the loneliness and stillness of the desert.

In the vicinity of El Paso, it is possible to make a very complete film of native Mexican life without ever crossing the border. It will require patience, for the women, especially, are extremely shy and will cover their faces at the first suspicion of a camera. A Spanish speaking companion can be of invaluable aid by diverting their attention while you do the actual filming. If no

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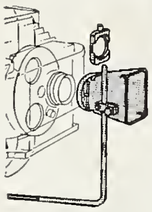

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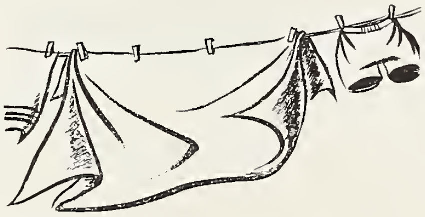

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linguistic companion is available, a little money judiciously used will sometimes overcome a lot of bashfulness.

Over in Arizona, near Coolidge Dam, live the San Carlos Indians, offering the cameraman views of perhaps the most primitive life in America today. You'll need patience, and plenty of it, but your pictures will be well worth the time and trouble. If you haven't much time, you will find a village of these Indians on the main highway near San Carlos Reservoir. It's called Bylas, and you can find it on any road map.

In conclusion, we would say that it is best not to attempt very many trick shots or grotesque camera angles. After all, the desert itself is grotesque and tricky enough without adding anything to it.

Rodeo reels

[Continued from page 289]

Shooting down from the top of the chute is about the only way you can get scenes of the horse being saddled and of the cowboy mounting. Then, as the gates open and the horse explodes into action, get it!

Of course, if you cannot get over near the chutes, you must be content with filming from the grandstands. Use your telephoto and your head, and you can still make a good rodeo picture. Many of the bucking horses will come quite close. While in the grandstands, take plenty of footage of reaction shots of the crowds rising in the stands to cheer some particularly good performance outside camera range. A little extraneous comedy relief might be obtained by filming some individual in various scenes of ecstatic enthusiasm and cutting them in, along with the other crowd reaction shots, when you are editing. This intercutting makes for a lively film and helps along the human interest in the continuity. Vary the kinds of people you take for your reaction shots, from cowboys to dudes, young people to old.

Of the races, little need be said. They are so similar to newsreel pictures, with which everybody is familiar, that the technique need not be discussed. Certain it is, however, that reaction shots of various groups of the crowd, and of the crowd as a whole, are distinctly important to keep your screen audience happy. You may want to get in several shots of different faces from high and low angles and call it the same race, if the riders and horses look enough alike. Try to buttonhole the winner for a shot. You will find a poem of local color, characteristic of the whole tradition of rodeos, as he (or she) sits astride his horse, modestly triumphant. Parenthetically, if it is not possible to get the winner of the race, splice in any close shot of a cowboy or cowgirl who looks the part and call him or her the winner. It may not be true, but it makes a good motion picture.

The sequence of the steer riding and the sequence of the calf roping need no elaboration, because the technique to follow is precisely that of the sequence of the bucking horses. Film them all, however, and even get a few shots of the clown going through some of his foolish gestures. Perhaps you can pull him aside when he is not busy and get him to do something special just for your picture. You will undoubtedly want to get some shots of the trick riding—horses jumping over motor cars, riders and all, or of the riders hanging on by their eyebrows as the horses race past.

A good conclusion for your film will be found in the trick roping. From several angles and distances, picture the cowboy weaving his noose in and out, roping horses while he stands on his head or jumping in and out of his noose the while it whirls. Cut to a shot of him snapping a rope straight out away from him. Now cut to a shot of the rope having been arranged to form the letters, "THE END," on the ground. Fade in on this shot, *holding your camera upside down.* Hold the shot for a second, then have somebody snap the rope clear into the air. When the film comes back from the processing station, invert this last scene end for end and you will have a sequence of a trick roper doing his routine, of him throwing the rope straight out away from him and of its falling to the ground to form the title, *The End.*

Cine peeves

[Continued from page 301]

does not show them until he can assemble complementary material.

"There's plenty he does not show. He calls that his camera diary. It is for his own enjoyment—because he knows his friends may not enjoy it all."

"He should get a medal," declared Wilkins, "and the axe for Mike Flanery. Mike's camera and his kid are the same age—three years. And in those three years Mike has not made 100 feet that doesn't show the kid. I will say for him that he uses titles, but that's only to date the shots.

"Worst of it is that he always starts from the beginning, so you can see how the child has developed."

"That is purely family record and should be held as such," ruled Cline. Now Chris Crosby has three or four thousand feet of his five year old, but he only shows the specials. To give you the idea, he has one called *Problems.* The kid tries to pick a feather off his slightly glued fingers, tries to reach a mug of milk on the table and upsets it. Things like that. People like to see his reels—the ones he'll show—for each has a story idea."

"I bet I can top the bunch of you," offered Curtin. "I know a chap who has 1,200 feet of squirrels on his side balcony. He must scatter nuts by the bushel."

"That's pretty bad," agreed Cline. He paused reflectively. "You know—you chaps have been telling what you dislike in amateur shots and it all works out to the one point that a shot should not be screened for the amateur's public unless it can be made interesting, either through its intrinsic, pictorial or narrative value or because of its arrangement with other related or contrasting subjects.

"The amateur should be made to realize that he owes as much to his public as the theatrical movie producer. He should not force his friends to suffer through dull or disordered showings. He should use the same careful preparation as the professional. Come over some night and I'll get out the projector and show you what I mean."

Cline signed his check and, with a nod to the others, left the club smoking room. The others nodded.

"He's dead right," assured Curtin, breaking the momentary silence. "We are paying to be entertained. just as the crowd at the Dreamland. The only difference is that we pay with attention and applause instead of with dimes.

"We have the same right to expect and demand entertainment. The amateur has no right to foist on us only what he is interested in.

"Let's go over to Cline's some night. He has the right idea. I bet he puts up a great show."

"At your own peril," declared Cary. "Cline has the right idea, but he's an angle maniac."

"You mean Anglo maniac," corrected Campbell.

"I said angle maniac and I mean angle," maintained Cary. "Cline has the right idea but doesn't realize he's as bad as the worst. He's crazy about angles, and if you go over there you'll not see an inch of film that has not been shot from a trench, up the elevator shaft or by hanging from a fourth story window. It's worse than the sawtooth panorama."

"Well, there ought to be a law."

A decade of the ACL

[Continued from page 291]

the constitution could be undertaken with reasonable guaranty of continued membership revenue. Tentative approaches to the other objectives had already been made and these were now rendered definite.

The League's magazine first appeared in December, 1926. By May of the following year. it had become entirely clear that its success was assured. The expenses of its launching and of the

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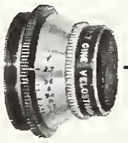

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16mm. DeVry Projector mod. G (200 watt)	19.50
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League's organization had been covered by advance payments for advertising. After the first five numbers of its magazine had appeared, the League was self supporting. *Amateur Movie Makers* was the first title of the League's organ; this was changed in 1928 to MOVIE MAKERS.

The Technical Department of the League was established by Walter D. Kerst in 1926. In 1929, he was succeeded by Russell C. Holslag, ACL. In 1932, Mr. Holslag became advertising manager of MOVIE MAKERS and was succeeded as technical consultant by Frederick G. Beach, ACL, who now holds that position. By May, 1927, thirteen amateur movie clubs had been organized. This number has now grown to about 200. In 1927, the Club and Photoplay Department of the League, now known as the Continuity and Club Department, was established under Arthur L. Gale, ACL. In 1932, when Mr. Gale became editor of MOVIE MAKERS, the Continuity and Club Department was headed by the present incumbent, James W. Moore, ACL. The Film Exchange required considerable nurture to become a fact, but, in 1928, this was established and has since grown steadily. The definite mandates of the constitution which called for the creation of specific enterprises had all been met in two years. In 1928, the personnel of the service departments was enlarged.

In these pioneer developments, certain other necessities became apparent. League members asked for aid that could not be given completely by correspondence and by material in MOVIE MAKERS. This need was met by the publication of additional matter in bulletins. At first, these were mimeographed; later the more important were printed. The first to appear was *Amateur Photoplay Production*, by Arthur L. Gale, ACL, published in 1927, a mimeographed affair. The first printed bulletin was *Making a Simple Film Story*, by Mr. Gale, which appeared in 1929. Since then, the totals have grown large. Ten printed bulletins, some of them of booklet size, have been published; thirty two bulletins, either mimeographed or facsimiled from printed matter, have been issued and one filter data card has been printed. Of the printed bulletins, 32,925 copies have been published; 13,875 copies of the mimeographed and facsimiled items and 3,000 filter cards have been made available.

In 1927, it was evident that members of the League wished some kind of membership token in addition to the card each received. Discussion among membership made it clear that a button, watch fob or automobile disc was not suitable. A film leader was chosen and this has since been used. Five different editions have appeared and others will appear from time to time. These are sold to new members and one is given upon each annual renewal.

In 1927, a project was initiated that has proved highly popular with the movie clubs. A film library made up of reels donated by clubs and by generous League members, eked out by a few purchases, was established and has since circulated among clubs all over the world. This is kept fresh with the best material from each year's filming and is in active use.

In 1929, a method was adopted to make requests for service easier for the membership by printing two service blanks, one for the Technical Department, the other for the Continuity and Club Department. These have been through several revisions, after tests by usage. In 1930, a Plot Service Chart, and, in 1931, a Title Service Chart were devised to facilitate service on these two special subjects.

Having met the pioneer needs and added various conveniences to them, the League had developed the technique of helping its members that has since been used. But other demands came on and were met by prompt action. The League was asked at various times since 1928 to plead, on behalf of movie amateurs, for opening closed areas to amateur filming. It is a tribute to the good manners of amateur filmers and to the cooperative spirit of those in control of places where filming had previously been restricted, to report that, in all but a trifling minority of instances, these pleas have been successful. In 1930, MOVIE MAKERS instituted the publication of occasional lists of films that were available for free distribution to home projector owners.

In 1929 and 1930 came the first opportunity for the League to carry out its constitutional charge to represent amateur cinematographers in legislative affairs. With the valued assistance of W. E. Kidder, ACL, and of the amateur movie industry, the League was able to secure an amendment to the tariff laws of the United States, providing for the free entry of amateur films under certain reasonable conditions. Since then, the League has participated in legislative representation on behalf of amateur interests at Washington and in various state capitals, notably during the code hearings under NRA in 1933.

In 1930, MOVIE MAKERS inaugurated very informally with its annual Ten Best rating what has since become the most prized listing of non theatrical films. This has been continued each year as a permanent activity of the League's magazine. Selections are made from all films seen by the League's consultants and from those especially submitted for rating. The staff of MOVIE MAKERS makes the decision.

In 1931, the League sent out a questionnaire to all its members and subscribers, asking for expressions of what they would like to see in the way of new offerings from the amateur movie industry and requesting certain information as to how well film and equipment had worn, what kinds of pictures were made, and concerning other matters. The response to this request was amazing in its volume and, as a result, a number of new pieces of equipment were introduced.

In 1932 and later, the travelers among the League's members were given real help in a series of Movie Makers articles dealing with customs regulations of the various countries of the world having to do with amateur movie equipment and film. This is kept carefully revised. The League is the only full source of information on this complicated subject.

In 1932, an important venture was undertaken. Movie Makers was five years old and its accumulated volumes were too bulky to serve as an omnibus of ready reference to filmers. The League's other publications were numerous. Books previously published covering the whole subject of personal filming had given way to monographs on special topics, on the shelves of cine dealers. It was necessary to provide for amateur movie makers a rational, clear and up to date text on personal cinematography. In response to this need, the League published its first complete book, *Making Better Movies*, by Arthur L. Gale, ACL, and Russell C. Holslag, ACL. This has since gone through a second and revised edition, with the help of Messrs. Moore and Beach. A total of 9,600 copies of these editions has been printed and a copy has been made available to each League member. To those who received the first edition, a supplement, containing the important revisions and additions in the second, has been sent. These copies, added to those prepared of the League's other publications, make an impressive total of 59,400 pieces of informative matter sent to League members or reserved to be sent to them. When we add to this a decade of Movie Makers, one each month, it will be seen that the publishing activities of the Amateur Cinema League are a very important part of its work.

In 1934 a Medical Film Exchange, made up entirely of films of primary interest to the medical profession, was inaugurated. This has been well received and has grown each year. It is separate from the general Membership Film Exchange established earlier.

In the past ten years, the Amateur Cinema League has maintained its headquarters in the world's largest city, New York. Five different offices have been used, at three addresses in Manhattan. In 1926, headquarters were at 470 Fourth Avenue, from 1927 to 1936, at 105 West Fortieth Street, in three different suites. In 1936, headquarters were moved to the present location in the Graybar Building, 420 Lexington Avenue. The office of the treasurer has always been located in Hartford, Conn.

The Amateur Cinema League has pioneered in technique. It was necessary, at the beginning of amateur cinematography, to develop a method that would serve personal filmers specifically and to do this in the face of the belief of two important groups that a special technique was not needed. Technicians in the field of theatrical motion pictures were willing to pass on, more or less condescendingly, such of their working methods as they thought might be of value to personal filmers. Specialists in the still photographic field offered eagerly to instruct movie makers how to get good pictures, presenting still picture methods as entirely workable in the new activity.

The League's administration was firmly committed to the belief that amateur movies were different both from theatrical motion pictures and from still photography and that the difference was important enough to justify the creation of a special technique. Obviously such a technique could not be created by thinking; it could only come from thinking plus trial and error. Advice was sought from theatrical movie makers and from still photographers, but the techniques in these fields were not adopted, lock, stock and barrel, in spite of much vigorous advice that they should be.

Experience has justified this stand of the League. There has been created, by the work of League members all over the world, a body of methods and principles that forms the basis for the technique of personal filming. Messrs. Gale, Holslag, Moore and Beach, of the League's staff, and Mr. Kerst, formerly of its staff, have assembled this technique through a decade of hard work. It has been tested by actuality and it is used by thousands of League members. Notably in the clarification of continuity has the League served. Ten years ago, this subject was a Hollywood mystery; today it is known, understood and admirably practiced by thousands of personal filmers. Mr. Gale and Mr. Moore have brought it out into the open, "debunked" it and made it real. The League's two service departments have made it abundantly clear that personal filming is neither theatrical movie making nor still photography.

The League is the father of movie clubs. Starting with three that came into being either a few months before or a few months after the League was founded, assistance has been given to hundreds of groups and about 200 have survived. Of the early pioneers, the Chicago Cinema Club, the Hartford Cinema Club (formerly the Hartford Amateur Movie Club) and the Metropolitan Motion Picture Club of New York are going strong. The third club to appear, the New Haven Amateur Movie Makers, has occasional activity.

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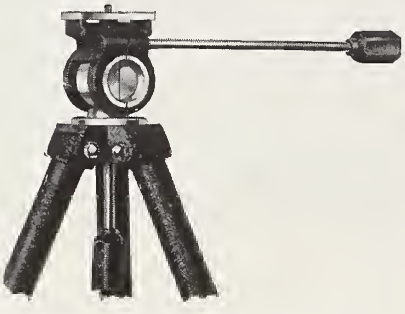

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Literature on Request

The League from the first has been international, with members and subscribers to its magazine in about sixty countries. It has been of service to various national bodies and has given its club aid in all parts of the globe. In 1935, an Extraordinary Membership was set up for national units; several of these have been awarded.

Recognition of the importance of amateur film contests was early given by the League. It believed that these might best be developed through clubs. This growth has been steady but relatively slow. Several interclub contests have been held in parts of the United States and others in Europe. Some efforts at national and international contests have been considered by the League to be premature, as the foundation of well organized clubs was lacking. Others have been given such aid as was possible.

An interesting development has been the very large growth of practical filming. Industry, science, education, religion and civic enterprise have used personal movies liberally. The League has welcomed this usage and has helped definitely to promote it. Some of the most important industrial concerns in the United States have filming departments and use League aid in their movie projects.

The League has helped various universities and colleges in instruction in personal filming. Sometimes this has been an extra curricular activity and in one or two instances it has been a part of the regular collegiate system of instruction. This development is growing and the League expects to deal with it more and more.

The League's consultants have given liberally of their advice and counsel to manufacturers in bringing out new pieces of cine equipment for amateur use. There is a close and friendly relationship between the League and the industry that provides movie making tools. In all this, the League has cooperated with the scientific body of the motion picture industry, the Society of Motion Picture Engineers. Their officials have been League members and ours members of their organization. We have worked together in important enterprises for the good of cinematography.

The League has recognized outstanding service to personal filming with two honorary life memberships. The first was given to the former ruler of Siam, His Majesty, King Prajadhipok I. The second went to George Eastman.

In the ten years of its life, the League has built a solid financial basis. It owes nobody, except for current bills, which are discounted wherever possible; it has never lost money in any year of its existence; its surplus funds protect its continuity and enable it to undertake extra activities as these may become essential or desirable. It owns MOVIE MAKERS, free of all obligations. It needs and accepts no subsidies and it is completely independent, all of which proves that honest service, practically given, is valuable enough to pay its own way.

This is a summary of ten years of real work by officers, directors and—above all—by staff members in keeping alive and active a central exchange through which the ideas, the efforts and the accomplishments of thousands of League members, and of the industry that serves them, have been interpreted and passed on to the great world of personal filming. The Amateur Cinema League is not an office, not a staff, not a magazine. These are all conveniences for its members. The Amateur Cinema League is, above all else, an active and intelligent group of movie makers, able to pool their successes and jointly to build upon their failures, which stands as a dependable guarantee that this new means of human expression shall be used effectively, constructively and wisely.

Featured releases

■ *This department is for the convenience of readers in guiding them to library films announced in this issue. These films, in the main, have not been examined by* MOVIE MAKERS.

■ BELL & HOWELL CO., Chicago, Ill., offers new Filmosound Rental Library releases as follows: *Idol of Millions,* three reels, featuring Jack Dempsey; *Bubble Blowers,* a one reel Howes Hodge Podge; *Rainbow's End,* a six reel Western, with Hoot Gibson; *Jesse James,* one reel Terry Toon cartoon.

■ EASTMAN KODAK CO., Rochester, N. Y., has catalogs of 8mm. and 16mm. Cinegraphs covering various subjects.

■ KODASCOPE LIBRARIES, INC., New York City, has the five reel 16mm. sound film, *The Last Wilderness,* for rent. The story is based on the exploits of Howard Hill, world's champion archer, and his skill has been dramatized in a story of the Northwest and its animals.

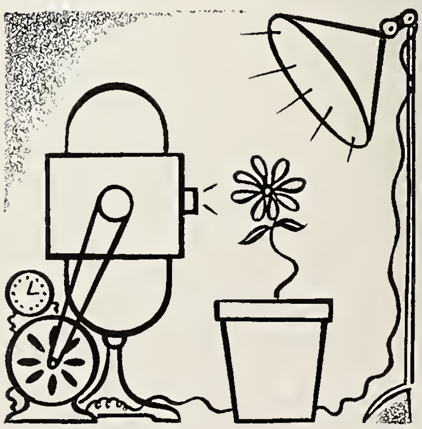
■ LEWIS FILM SERVICE, Wichita, Kans., makes a specialty of film programs for summer camps. Features, comedies and educational subjects are available and a list will be sent on request.

■ NU-ART FILMCO, New York City, has a new catalog listing 16mm. sound on film motion pictures; features, adventures, Westerns and short subjects are listed.

■ ERNEST M. REYNOLDS, Cleveland, Ohio, offers various scenic subjects, 100 ft., 16mm., for sale.

■ ALAN B. TWYMAN, Dayton, Ohio, has 16mm. sound films for rent which are particularly adapted for road show purposes.

■ Y. M. C. A. MOTION PICTURE BUREAU, New York City and Chicago, Ill., is ready with the 1936-1937 catalog, *Selected Motion Pictures;* a free copy may be had on request.



Movies tonight in the village hall

DUNCAN MacD. LITTLE, ACL

"MOVIES Tonight in the Village Hall" was the notice that was posted in many little communities in Quebec and Nova Scotia during July of last summer, although as often as not the wording was "Cinéma ce Soir à la Salle de Village." In many instances, the shows that Mrs. Little and I presented were the first and only movies ever to be seen in or anywhere near these hamlets. Little farming or fishing communities there in the North Country, frequently scores of miles from the railroad, these gatherings of people often were scarcely villages. One of our "theatres" was a Parish Hall, used during the year for town meetings and as the polling place when election time came around. It could seat about two hundred and twenty five. Twice we packed it with over three hundred!

Another was veritably a theatre indeed! There was a proscenium arch, even though it was made out of builders' paper tacked to rough scantling, and there was a curtain that could be rolled up and down. Quite evidently, the curtain had once been a sail, and upon its patched and stained surface was a Florentine scene copied by local talent from a calendar advertising the famous product of an equally famous brewery. This "theatre" had, originally, been the storehouse of a Scottish merchant who sent his ship out from Edinburgh to the wild St. Lawrence coast, to trade necessities for dried fish! Later it had been the storehouse for a great lumbering company. The story is that the building was erected more than a hundred and fifty years before—shortly after France had lost Canada to the British. Today it has come to a worthy estate in the years of its dignity, for it is the Community Center for the little village.

Still another of our "theatres" was the meeting room of the local Division of the Sons of Temperance. The charter on the wall bore the date of 1856—and the record runs complete from then until the present day. For eighty years, the people of that little community have been fighting Demon Rum, and those early organizers of the Division must have turned over in their graves at our invasion of their meeting hall, for one of the films pictured a birthday party, held on our porch in that same community, and the main item of the sequence was a libation from a Gargantuan shaker, poured, not at the feet of the gods, but into the glasses of the guests.

Once during the tour, our pictures were shown upon the screen of a real motion picture theatre! True, it was a small house, seating less than five hundred, but it boasted a neon sign and other up to date attributes. Here again, the place was packed, even though it was a pleasant evening, and on the nearby Green the local band was giving a free concert.

But only too soon our holidays were over, and the time came to return home. It seemed as if our impromptu road shows must cease. Yet not quite! When we boarded the ship for our return journey, we were greeted at the gang plank by the chief officer. His opening question was, "Are you going to give us another picture show?" In the past years, we had given many shows on that ship. We gave two on this voyage, and the attendance at the second was nearly one hundred percent greater than had been the case earlier in the voyage (before we came aboard) when a Hollywood production with sound was screened.

On the steamer, we showed, among others, pictures taken of and on that very ship, including several shots of the late captain, a man of great personality. When his closeup appeared on the screen, the members of the ship's company—with one accord and without a word or sign from anybody—rose and stood at attention in a tribute to a loved comrade and a worthy commander.

At many of our performances, admission was charged, at others there was no charge. But whenever a charge was made, some charitable and worthy cause benefited—benefited one hundred percent in all but one case, and in that the "split" was approximately thirty percent for the charity and the balance to the theatre, for the theatre expenses ran on regardless of our show.

We enjoyed it all immensely. It is great fun to make other people happy, and we know that in many instances we did just that. I feel sure that no movie maker will ever gain the full flavor of his films until he shows them to people who have never before seen movies of themselves in their normal and homely occupations.

The clinic

[Continued from page 297]

the same subject. With one exposure, there are bound to be areas in the film where no action is registered, and a second, and even third, exposure results in amazing displays.

Heat ■ The summer sun may be warmer than you think and it is unwise to leave the camera, lenses or exposure meters lying around in the hot sunlight. Heat softens grease and oil and may cause it to run in some cases, spoiling film or robbing the camera of its lubrication. Cameras may run a little faster than normal if they are warm. Cemented lenses and filters will

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be damaged by heat if the cement is warmed to the point where it becomes soft. Needless to say, bright sunlight is dangerous when you are loading, and it is always best to open the camera in the shade.

Nautical filming ■ In order to give that rolling effect which causes qualms of seasickness in the audience, it is important to have the camera level at all times when filming from the deck of a boat. In other words, keep the horizon level and let the boat appear to rock. This is far more effective than having the camera move with the boat, as it must when it is on a tripod. Then the horizon will tilt in a crazy fashion. The human body acts as a "gimbal tripod" and can compensate for the movement of the boat to keep the camera level at all times.

Title stunt ■ While typed titles may not please all tastes, they may be ideal for special effects. An extreme closeup of a typewriter mechanism writing the words of the title is an interesting shot. An easy method of filming this type of closeup is to use a small metal titler, although, if the camera has a full field reflex finder, the titler would not be necessary. The typing can be fairly rapid, but it is a good plan to continue the title a few seconds after the wording is completed, in order to give the audience time to register the whole meaning.

Cords ■ The movie maker often finds that the standard cord furnished with his projector is either too long or too short for the usual position occupied by his machine in relation to the outlet. A special length cord is made up easily from standard electrical fittings to be found in all hardware stores. Substantial cord and plugs should be used, however, and care must be taken in wiring, because of the load imposed by a high powered projector. Some movie makers having machines with lower wattage lamps prefer to add a two way snap switch to the projector cord, which enables them to plug in a table lamp that automatically turns on when the projector current is off.

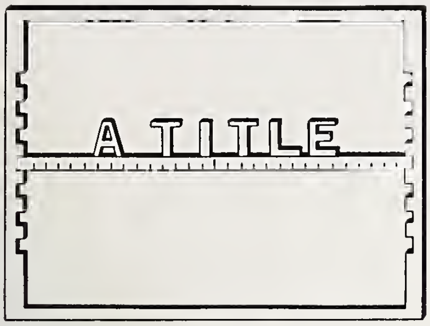
Thrill shots ■ An old standby that always gets a favorable reaction from the audience is the shot taken from between the rails on a railroad track or from the pavement while a car roars over the camera. It is usually safe enough to try this effect if the camera is fastened down securely. A couple of nails and some cord will hold the camera to the ties in the case of the railroad and a piece of iron or a heavy stone will keep it in place on the road. The camera must be started well before the train or car arrives, in order to give the operator plenty of time to get clear. If the camera is set on half speed, it will not only halve the amount of waste footage at the beginning but will cause the speed of the train to be doubled in the projected picture.

Letter guide ■ Those movie makers who use movable letters may shorten the time required to arrange them in words for titles, by using a light wooden guide, such as that shown in the illustration. It consists of a frame which is just large enough to fit over the title background and may be constructed easily. The crosspieces are so spaced that, by fitting them into the notches which are cut in the sides of the frame, any number of lines may be used. When a wording is to be prepared, the frame is placed over the title, the letters are lined up by placing their bottom edges against the crossbar and, when they are in position, the whole frame is moved down slightly and then carefully lifted off the title board. It will help in spacing the letters and words if the crossbars are divided into sec-

Here is a depth table for a cine note book or card file

DEPTH OF FIELD TABLE FOR THE 2-INCH *f* 3.5 LENS.

DISTANCE FOCUSED UPON.	RANGE OF SHARPNESS											
	f 3.5		*f* 5.6		*f* 8		*f* 11		*f* 16		*f* 22	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
INF.	95'-0"	INF.	60'-0"	INF.	42'-0"	INF.	30'-0"	INF.	21'-0"	INF.	15'-0"	INF.
100'	49'-0"	INF.	37'-0"	INF.	30'-0"	INF.	23'-0"	INF.	17'-0"	INF.	13'-0"	INF.
50'	33'-0"	106'-0"	27'-0"	INF.	23'-0"	INF.	19'-0"	INF.	15'-0"	INF.	12'-0"	INF.
25'	20'-0"	34'-0"	18'-0"	43'-0"	16'-0"	62'-0"	14'-0"	150'-0"	11'-0"	INF.	9'-0"	INF.
15'	13'-0"	18'-0"	12'-0"	20'-0"	11'-0"	23'-0"	10'-0"	30'-0"	9'-0"	54'-0"	8'-0"	INF.
12'	10'-8"	13'-9"	10'-0"	15'-0"	9'-4"	16'-10"	8'-7"	20'-0"	7'-7"	28'-5"	6'-8"	57'-0"
10'	9'-1"	11'-2"	8'-7"	12'-0"	8'-1"	13'-1"	7'-6"	15'-0"	6'-9"	19'-3"	6'-0"	29'-2"
8'	7'-5"	8'-9"	7'-1"	9'-3"	6'-8"	9'-11"	6'-4"	10'-11"	5'-9"	13'-0"	5'-3"	16'-11"
6'	5'-8"	6'-5"	5'-5"	6'-8"	5'-3"	7'-0"	5'-0"	7'-6"	4'-8"	8'-5"	4'-4"	9'-11"
5'	4'-9"	5'-3"	4'-7"	5'-5"	4'-6"	5'-8"	4'-3"	6'-0"	4'-0"	6'-7"	3'-9"	7'-5"
4'	3'-10"	4'-2"	3'-9"	4'-3"	3'-8"	4'-5"	3'-6"	4'-7"	3'-4"	4'-11"	3'-2"	5'-5"



A wooden guide will help in using movable title letters

tions by small marks placed every half inch. The center of the bar should be marked zero and the divisions numbered in both directions, starting from the center.

Afterthoughts on color

[Continued from page 294]

on projection of the developed film, however, that such small openings were not always adequate.

The prominence of certain colors, on projection, seemed a distortion of the view, until I learned that human eyes are not accurate judges and do not see color as it is truthfully recorded on film. Despite the use of a haze filter, blue was still predominant in mountain and cloud scenes, and especially was this noted on cloudy days. At Crater Lake, for instance, a closeup was made of a cream colored relief map of the lake country itself, which was laid out on a table under an open shelter. Oddly enough, the map did not photograph a true cream color, but, doubtless because of reflected light from the sky, it came out a tempered steel blue!

Some of the most striking scenes were those where fleecy clouds were drifting lazily over a pretty heaven. The color balance was perfect and the definition extremely fine. The prominence of blue gave the scene a "cold" appearance, which was precisely the effect we wanted the clouds to create.

Beautiful patches of mountain lilies, Indian paint brush and blue flowers offered another chance to experiment with the new color. Fields of yellow buds lent warmth to scenes having snowy backgrounds. From long shots, we swung to closeups to bring out greater detail. When the breeze failed to provide the necessary movement in flower filming, my partner knelt within a foot or two of the plant and blew lightly at the flower stalk while the camera hummed merrily. To inject further action, the camera was started on a closeup of flowers growing beside the trail. Shortly, the shadow of an approaching hiker falls on the path and, finally, you see his boots in closeup as he walks diagonally across the scene.

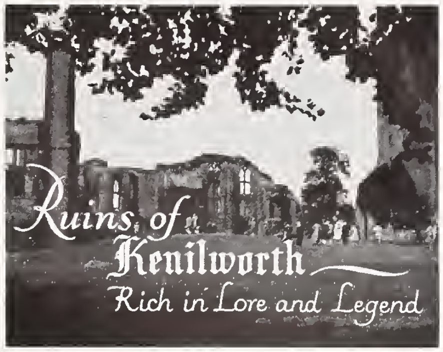
Aside from some night shots of a brown and black bear and a camp robbing jay, animals willing to pose for a wild life sequence were really quite scarce. Once we spotted a flock of eight mountain sheep browsing on the grassy slopes over Logan Pass, but rangers objected to close range filming for fear that the camera would frighten away the herd and deprive other tourists of a chance to see the "critters."

We had hoped to film mountain goats in Glacier and the Tetons, but these animals kept well out of sight. While homeward bound, however, we stopped off in Wyoming's Big Horn Mountains where we found a fellow camper with a domesticated billy goat. This gave me an idea. I brought out the camera and took some distant shots of the goat hiking around the green and brown hills and bobbing through brush. Then I took a worm's eye view of my partner looking "goatward" and peering through his binoculars. Then he passed the glasses to his left out of camera range, and we changed places. He started the camera on me looking in the same direction, then I reached out into space with my right hand and brought the glasses to eye level and sighted through them. By cutting in occasional glimpses of the goat, I tried to build up an interesting sequence. An attempt to fool a movie audience? Not at all. Properly composed titles will add the humorous touch.

Because forethought was given to planning on location, the sequences were easily edited, although not always following the chronological order. I have found that the sudden shift from a blue and white mountain shot to a yellow and brown field scene is almost too abrupt for pleasant effect and that such changes in the future must be more gradual to prevent a "crazy quilt" appearance on the screen. Just as long shots are followed by medium shots and closeups, it is my belief that, in passing from one major scene to another, succeeding scenes should contain a diminishing amount of the one color and an increasing amount of another until the switch, for example from blue to brown, is not so noticeable. Of course, there will be times when an immediate change is desirable for contrast.

For the film's introduction, government booklets, each describing a national park visited, were placed one atop the other on the lawn, and the camera was set on its tripod, shooting down at an almost vertical angle. The neat pile lay diagonally across the finder so that only the upper half of each booklet, bearing the name of the park and its location, was visible. Several purple and white flowers were strewn around the upper edges of the booklet pile to give warmth to the cold black type. These contrasted nicely against the green grass.

After the camera motor was started,



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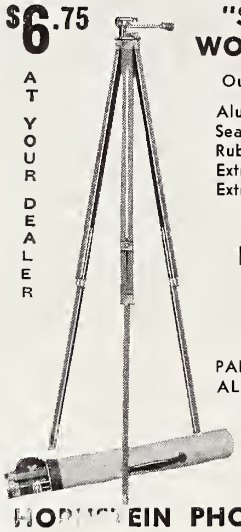

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the top booklet, *Glimpses of our National Parks*, was first removed very slowly, followed in turn by booklets from Yellowstone, Grand Teton, Crater Lake and Mount Rainier. The Glacier Park booklet remained a bit longer on the screen, then the cut was made from this booklet to a closeup of an entrance sign in Glacier Park itself. All this preceded the shot of our car stopping at a ranger checking station, then entering the park where occasional glimpses of the car or hikers injected movement into the prettier mountain views.

Fortunately, I am as disgusted as I am proud of these initial attempts at color filming. Perhaps that is human. But at least I am learning.

If you film at the beach

[Continued from page 292]

tanned flesh does not register sufficiently, but some color must be sacrificed if deep filters are used. A person who feels happy and mystified about this filter is the freckled one, as freckles do not register even in a closeup.

Instead of buying a separate filter for each lens, a combination sunshade and filter holder can be used. This will hold the standard two inch square filter and, at the same time, it prevents sun glare when filming with lighting that might cause it otherwise.

Another difficulty arises when filming horizontally close to the hot sand. Scintillating heat waves are rising. If a telephoto lens is used, these waves are more prominent on film than to the eye. Sharpness is impossible in taking a scene with a telephoto through these waves; they might be the breath of Old Nick himself.

If shooting is compulsory when the sand is hot, it will be found better to come close to your subject and to use a high angle. From this angle, the heat waves will be more scattered. Just after a shower is the ideal shooting time, as the sands are cooled.

A two or three inch lens is convenient because, with it, closeups of persons can be made without the subject's being aware of the camera. If children are to be photographed, first accustom them to the idea by showing them an empty camera on a tripod. Let them look through the view finder and start the camera a few times. They will soon become tired of it and shift their attention back to their own games. Then you are ready to make the sequence. Be sure, however, to have the children between yourself and the sun, for, with flat lighting, flesh tints appear to melt into the sand. Side lighting is a little better.

If you are presenting a scene from the viewpoint of a child, place the camera low, so that you can film from his eye level. If the scene represents an adult looking down at the child, place the camera at the adult's eye level. Again, if the child is to look at the man, place the camera low, tilted upward to take a closeup of the man's face against the sky as the child would see it.

Surf board riding is best filmed from a position at right angles to the breakers, and a four inch lens is recommended. If there happens to be a flat rock about ten feet from the water's edge, it will provide a convenient and safe camera platform. Then, if the boards are about 100 feet from the camera, the surf board rider will fill the picture when the four inch lens is used. Scenes made this way will have the appearance of being taken from another surf board or boat but will have the advantage of steadiness.

Picture composition has to be sacrificed in a holiday crowd. But one can make a few carefully composed scenes for the opening of the picture, and these will establish the locality. Then, as the movement quickens, tempo is the important thing.

When editing, be ruthless with your pet shots. More films are spoiled by long scenes than by short ones. It is useless to say that any one scene should have a particular length; one shot might be three feet long and the next a foot long. Scenes in action films should be shorter than those in scenic pictures. If the scenario has been written with care, few titles are needed and they should be short and to the point.

If you have had your camera on the beach much during the summer, return it to the maker for overhauling.

The Berlin Olympics

[Continued from page 293]

During the Olympic Games, there will be many meetings of international societies and important events in Berlin and other cities of the Reich, and the amateur will be afforded ample opportunity to add numerous beautiful scenes to his collection of Olympic Game films. There is absolutely no law against bringing cameras and films into Germany and filming there, with the exception of the usual regulations pertaining to the military fortifications and camps. There is no import duty on still or movie cameras, neither are deposits required on such articles, provided, of course, that they are for bona fide amateur use. This applies also to the usual photographic accessories. There are no definite rules governing the foregoing regulations, although the customs officers everywhere have been instructed to use generous discretion and to help visitors in every possible manner. Moreover, the German photographic industry is able to supply accessories of all kinds. There are many photo finishers in Berlin, while both Eastman Kodak and Agfa companies maintain splendid branches in that city.

Lodging quarters will be obtained for all visitors by applying to the *Olympic Quartieramt*, Berlin. Information about traveling in Germany will be furnished by the German Railroads Information Office, 665 Fifth Avenue, New York City, and its branches in Buenos Aires, Rio de Janeiro, Santiago de Chile, Havana, Lima and Toronto. For the convenience of all members of the ACL who wish to visit Germany during the Olympic Games, the German Amateur Movie Society, known as the *Bund Deutscher Film-Amateure*, 13 Fennstrasse, Berlin-Niederschoneweide, will be pleased to answer all inquiries, especially those pertaining to photographic matters.

We German amateurs wish to all our movie friends who will visit our country from all parts of the world, in August, much success in their photographic work and *Gut Licht!*

Ultima Thule

[Continued from page 296]

and landed him too, but only after a terrific battle. Art Donner, with an ordinary repeating rifle, put three shots, and in some cases five, through a tin can tossed into the air, all before it reached the ground. This is a bit difficult to show photographically, but it makes a good story!

Saturday night of this most eventful week finds you on your way home, more weary, perhaps, than ever before but with a camera filled with movies which will warm your heart many a cold winter evening.

About forty miles from Annapolis Royal, and through dense wilderness all the way, is a typical sportsman's paradise. It surrounds a lodge which is situated on Lake Kedgemakooge. A number of small lakes and brooks in the midst of almost jungle like forest give one reason to believe that he is in the very heart of the fishing and hunting country. Moose, deer and bear tracks are in constant evidence along the marshy banks. If you are alert but cautious, wild ducks, blue herons and loons will give your filtered telephoto a chance to operate.

Nova Scotia is probably as famous for its apple industry as for anything else. Apple Blossom Sunday comes about the middle of June. If you film this subject next season, use color for a full picture of its beauty. A long and medium shot of an orchard, followed by several closeups of buds and blossoms, the sequence closing with a longer shot of children playing around the trees, would produce a fine color study. If possible, take the closeups with the sun shining through the petals, which gives richer color. Remember to open up for both closeups and back lighting in using Kodachrome. The apples, of course, are not harvested until fall. This process of picking, sorting and packing is an interesting one and could be made effective pictorially.

Dartmouth is just across the harbor from Halifax, and both cities celebrate Natal Days. Colorful parades of bands and floats start the day. Numerous water sports are carried on until early evening, and an elaborate display of fireworks closes the event. As is suggested in this number of MOVIE MAKERS, fireworks may be filmed to advantage with a fast lens and supersensitive film, by exposing the same length of film two or three times, thereby getting more material in each shot. Fireworks at night always make an impressive ending for a film of this type.

Halifax is about twelve hundred miles from New York City by car. It may be reached more easily by boat. However, a car is essential if the unusual and out of the way places are to be reached.

Nova Scotia, New Scotland, Ultima Thule, will linger forever in the memory of movie makers who film there.

Amateur clubs

[Continued from page 300]

the League's Club Library, was the feature of a late meeting. Interested movie makers in the community are invited to get in touch with the club's officers.

'Phone club contest ■ First award in the second annual contest conducted by the Movie Group of The Telephone Camera Club of Manhattan, ACL, was given to William Entress, ACL, for a clever one reel comedy, *The Model Husband*. Fred Baker took second place with his crisp scenic, *Taconic State Park*, and Vic Hindman won honorable mention with the short skit, *A Quiet Evening*. Thrown open this year to all employees of the New York office, the contest produced eleven entries, five on 8mm. and six on 16mm. film. The judges were Charles J. Carbonaro, ACL, Phil O'Toole, of the Movie Group, and James W. Moore, ACL, League club consultant. At a recent regular meeting, Frederick G. Beach, ACL, League technical consultant, led a general discussion on the many factors of success in summer filming, putting particular emphasis on the correct uses of color film.

Montreal memos ■ *The Use of Filters*, by Philip Croft, and *Processing Cine Films*, by A. L. Belasco, Canadian representative of the Agfa Ansco Corporation, are the titles of recently featured talks given to members of the Montreal Amateur Movie Club, according to the dispatches of president Harold D. Marwood. Outstanding among the films screened by the club has been *The Making of Canadian Homespun*, loaned by its producer, Duncan MacD. Little, ACL, of

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El Monte: Anderson Photo Service, 232 W. Valley Blvd.
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San Francisco Camera Exchange, 88 Third St.
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E. C. Kilian, 411 North St.
Salem: North Shore Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Westfield: North Side Pharmacy, 34 N. Elm St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

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Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
St. Paul: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.
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E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.
Winona: Harry Peiewert Photo Supplies, 69 E. 4th St.

(Continued on page 320)

New York City. *Sonny*, winner of the Christmas films competition of the Toronto Amateur Movie Club, was another guest picture. while *Sky Trails through the Rockies*, *The Funeral of King George V* and *Isle of Ceylon* have been presented by club members. The group will conduct three outings during the summer months.

Toronto items ■ Recent meetings of the Toronto Amateur Movie Club, in Ontario, have featured the screening of *Carefree Days*, a 16mm. vacation picture, by Victor Middleton: *Nantucket* and *Thousand Islands*, two 16mm. travelogs, by Paul Fowler; *Around the Yacht Club*, a documentary film on 9.5mm., by Thomas Mace, ACL. According to a late issue of *Shots and Angles*, T. A. M. C. bulletin, this active group will embark soon on the production of its first dramatic film, a mystery story as yet unnamed.

Gadgets in Philly ■ Gadget Night at the Philadelphia Cinema Club brought out everything. from homemade double turntables, through an emery grinder made into a rewind, to a tiny model in color of Peggy's Cove which had been used in making titles for a film of that community. At the same meeting, the results of the club's first one hundred foot contest gave awards to Ripley W. Bugbee for *Spring is in the Air*, best film in color, and to H. Edward Fry. ACL, for *Junior Wings*, best film in black and white. A year's membership in the Amateur Cinema League was presented as a prize to each winner. Eight hundred feet of film on the Philadelphia "Zoo", by Eric Miller. rounded out the evening's screening.

Test film ■ In Michigan, the Detroit Society of Cinematographers, ACL, has produced at one meeting and screened at another the one hundred foot comedy, *A Dream of Love*, reports W. M. Ward, secretary. More than a hundred attended a program in which E. T. Satory, ACL, gave a working demonstration of film reversal and George W. Hance presented an illustrated lecture on the use of filters for summer filming. The club is receiving wholehearted cooperation from the local press in making known its activities and programs.

New in Lincoln ■ In Nebraska, a new club has been formed, known as The Lincoln Cinematographers, according to the report of Dr. Robert A. Hardin, first secretary treasurer. Other officers are F. C. Hush, president, and Felber Maasdam, ACL, vicepresident. Meetings are being held on the first Friday of each month. Interested amateurs are invited to get in touch with the officers.

News of the industry

[Continued from page 302]

of the Atlantic Coast Section of the Society of Motion Picture Engineers. This material. which has already been mentioned in these columns in its application to the Pola-screen, supplied by the Eastman Kodak Company, possesses the property of limiting to a single plane of vibration any light which passes through it. This phenomenon. known as polarization, is produced by a thin coating of extremely minute crystals, all turned in the same direction. Each of these crystals is a polarizing medium, so that the total effect is given by the entire screen. Many interesting applications in color and strain effects were shown by the speaker, George W. Wheelright, vice-president of the Polaroid Corporation, but the outstanding feature was a demonstration of 16mm. stereoscopic motion pictures, in black and white and Kodachrome. Two projectors were used, each projecting an image polarized at right angles to the other. These two images were superimposed on the screen, but the observers were able to select the proper stereoscopic image for each eye by wearing spectacles fitted with Polaroid screens.

Da-Lite ■ An array of moderately priced, collapsible bead screens in leatherette covered cases constitutes the line of New Deal bead screens offered by the Da-Lite Screen Company, 2723 North Crawford Avenue, Chicago, Ill. The firm now offers the De Luxe New Deal, which extends the range of screens to suitable size for larger audiences.

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Du Morr universal ■ With the adaptation of the Du Morr Radial Wipe to Filmo cameras equipped for hand cranking, the scope of this clever device is still further extended, as it already has been available for the Ciné-Kodak Special and the Victor Model 5. The device is a geared mechanism for producing various wipeoff effects in synchronism with the movement of the film through the camera. It is made by J. D. Cochrane, jr., ACL, 734 Brooks Avenue, Wyoming, Cincinnati, Ohio.

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(*Continued from page 318*)

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Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
W. Schiller & Co., 6 S. Broadway.

MONTANA

Butte: **Al's Photo Shop, 42 N. Main St.**

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O st.
Omaha: Eastman Kodak Stores, Inc., 1618 Harney St.
J. G. Kretschmer & Co., 1617 Harney St.
Sidney: Sidney Drug Co., 1001 Illinois St.
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Reno: Skeels Drug Store, 2nd & Virginia Sts.

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Nashua: Nashua Optical Co., 202 Main St.
Newport: K. E. Waldron, 1 A Main St.

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Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
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Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
Gruber's Camera Exchange, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
Motion Picture Camera Exchange, 38 Park Pl.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Summit: Eastman's, 384 **Springfield Ave.**
Trenton: Dwyer Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
Stewart's School Films, 143 Hunter **Ave.**
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush **Ave.**
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, **136-14A** Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: American News Co. and its Subsidiaries, 131 Varick St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington **Ave.**
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ABE COHEN'S CAMERA EXCHANGE, 120 Fulton St.
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Finnish Book Concern, 27 E. 125th St.
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Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
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Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
Luma Camera Service, Inc., 330 W. 42nd St.
MADISON MART, 403 Madison Ave.
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Meta Photo Supply Co., 126 Liberty St.
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Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Acme Cine Service, 2057 Cummings Ave.
Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: **Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.**
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., 101 E. 4th St.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M. & H. Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers, 416 N. 5th St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Metropolitan Photo Supply Co., 33 Aborn St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

SOUTH DAKOTA

Aberdeen: Artz Studios, 416 S. Main St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores, Inc., 1415-4th Ave.
Lowman & Hanford, 1512—2nd Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.
Wheeling: Twelfth St. Garage, 81-12th St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell
Phillips: Jakoubek's Photo Shop.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSIONS

CANAL ZONE

Ancon: Lewis Photo Service, 124 Central Ave.

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas E Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., The Block, 284 Collins St.

West Australia

Perth: Kodak (Australasia) Pty. Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co. Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co. Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 375 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Sedovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Art Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: **M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.**
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: **Durbins (Suburban) Ltd., 131 High St., Putney.**
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 320 Regent St.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman. Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Et. Hesperiankatu 12A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Etabls. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka," Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart. 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger. V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S.A.F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlien, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: **Amateur Photo Store, 109 N. Bridge Rd.**
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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■ BELL & HOWELL Photometer exposure meter, six dollars; four Bell & Howell Filmador humidors, two dollars each. Write F. C. GEBHARDT, 140 E. 29th St., Erie, Penna.

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Remember that all movie subjects are eligible. Whether you spend your vacation in the mountains, at a resort, at the shore or in traveling abroad, the picture that you make can be a candidate for Ten Best consideration. It isn't necessary to find an unusual subject — just plan your picture carefully and do your best work when you film it.

If you are a League member, use the League services freely in planning your film —do not hesitate to ask questions about movie making technique. Use of the League services in no way disqualifies you for the TEN BEST listing. Ask for continuity suggestions, and, if you expect to meet technical difficulties, by all means query the League's technical consultant about them.

After the picture is completed, send it to the League's consultants for final review, and it will be considered automatically for the Ten Best. If you are not a League member, simply send your reels to MOVIE MAKERS with a letter stating that the picture is being sent for Ten Best consideration. It will be examined and returned promptly.

8mm.–9½mm.–16mm.–35mm.

All film widths are eligible for the Ten Best except that 35mm. films made for compensation from a client cannot be considered. Entries are divided into two categories:

1. SPECIAL—All films for which the maker has received compensation from a client at any time previous to the official closing of the year's competition. (35mm. pictures cannot be entered in this category.)

2. GENERAL—All films made on stock of any width which do not fall into the above class.

So that the staff of MOVIE MAKERS can be certain as to which class a film belongs, it will be necessary to supply a certificate concerning the picture's standing in this regard. The certificate should be made in the following manner:

Place ....
Date ....
I, ...(name)...................., certify
that I did / did not receive compensation
from a client for a motion picture
made by me entitled ....
(name of film)..........................
.............(signature).............

Before the final selection is made, these certificates will be requested individually from all movie makers whose films are being considered. However, it would be advisable to execute this certificate and to send it with the film rather than to wait for the final request for it from MOVIE MAKERS. Simply copy off the certificate form with pen or typewriter, eliminating the words, "did" or "did not," as fits the status of your picture, and sign it. Enclose it with your letter notifying the League that your picture is being sent.

The last day for 1936 Ten Best entries will be

October 15

MOVIE MAKERS

420 Lexington Ave., New York, N. Y.

■ IT'S FREE! Latest catalogue on real bargains of 8mm. and 16mm. movie equipment. Write Now! ELDER, Dept. MJ-3, Chelsea, Mass.

■ EDITING and rewind disc—facilitates handling of film in getting it into rolls for editing or storage. For use on Eastman rewind. $3.00; B. & H., $3.50. ERNEST M. REYNOLDS, 165 E. 191st St., Cleveland, Ohio.

■ FILMOSOUND 130-C, LATE MODEL, used as demonstrator, new guarantee, looks like new, complete with canvas covers, extra set of tubes and 1000 watt lamp, list $929.85, sell for $525.00 delivered. HAROLD E. MONROE, Box 619, Portsmouth, Ohio.

■ 750 WATT projector, $45.95; 3 speed camera with *f*/3.5 lens, $26.95; other bargains, trades accepted. films, cameras, projectors bought. BLCAMEX, 1451-M Broadway, New York.

■ PROJECTORS, 16mm. silent, Eastman Model "A," 250 watt bulb, perfect condition, $22.50; Victor Model 20, 750 watt bulb, 1600 foot arms, case, $100.00; Eastman Model "C", 100 watt bulb, case, $15.00; Victor Model 25, 500 watt bulb, S-O-F, $225.00; B&H Model 129-B, 750 watt, case, list $210.00, demonstrator, price $160.00. 8mm. users should see our slitter at $4.50, also available positive film for titles. J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

■ FOR SALE: Victor Turret camera with *f*/2.9 Dallmeyer lens, $47.50; Victor projector, $65.00 with case; screen, beaded, 30x40, $3.55. All above equipment like new. ROBERT VIDAIR, 1980 Unionport Rd., New York City.

■ CINE-KODAK Special, Kodascope projector, complete with tripod, lens equipment and all accessories. List $800.00; will sell $475.00. BOX 193, MOVIE MAKERS.

■ SEE our list of bargains in 16mm. cameras on page 305. WILLOUGHBYS, 110 W. 32nd St., New York City.

EQUIPMENT WANTED

■ WANTED: 16mm. Library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK, National Broker, 402 W. Washington, Fort Wayne, Ind.

FILMS FOR RENTAL OR SALE

■ 8MM., 16MM., CARTOONS: Popeye, Mickey Mouse, Betty Boop, others. List free; state width. LINCOLN FILM SERVICE, Box 293-H, Saginaw, Mich.

■ 16MM. SILENT films for rent. Cameras, projectors and supplies for sale. Write for lists. DELAWARE AMATEUR MOTION PICTURE SALES, P. O. Box 821, Wilmington, Del.

■ 8 AND 16mm. films, Popeye, Betty Boop, Hal Roach "Our Gang" comedies and many other subjects. Catalogue free. EXCEL HOME MOVIES, 622 Madison Ave., Toledo, Ohio.

FILMS FOR EXCHANGE

■ EXCHANGE — SILENT and SOUND ON FILM HIGH GRADE FEATURES, comedies, cartoons, etc. SILENT PICTURES, $1.00 per 400′ reel. Silent catalogue No. 26; sound catalogue No. 1 available. If you are particular and want QUALITY, we ask your patronage. CINE CLASSIC LIBRARY, 1041 Jefferson Ave., Brooklyn, N. Y.

TRADING OFFERS

■ SHOTGUNS, TARGET PISTOLS, RIFLES, and guns of every description taken in trade at liberal allowances on all "still" and motion picture equipment; authorized representatives of Eastman, Bell & Howell, Victor, Zeiss, Leitz, Graflex, Weston, etc. NATIONAL CAMERA EXCHANGE, established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ EXCHANGE your used 16mm. library films for new movie cameras, projectors, other films. Details, list free. MOORFIELD-SHANNON, Nutley, N. J.

MOVIE MAKERS

classified advertising does the job; it will sell your used equipment for you. Only 10c a word . . . minimum charge $2.00. For the August number, send your advertisement so that it will reach us on or before the 10th of July.

Printed by WNU, New York

Full-color Movies

For 8 mm. and 16 mm. Cameras

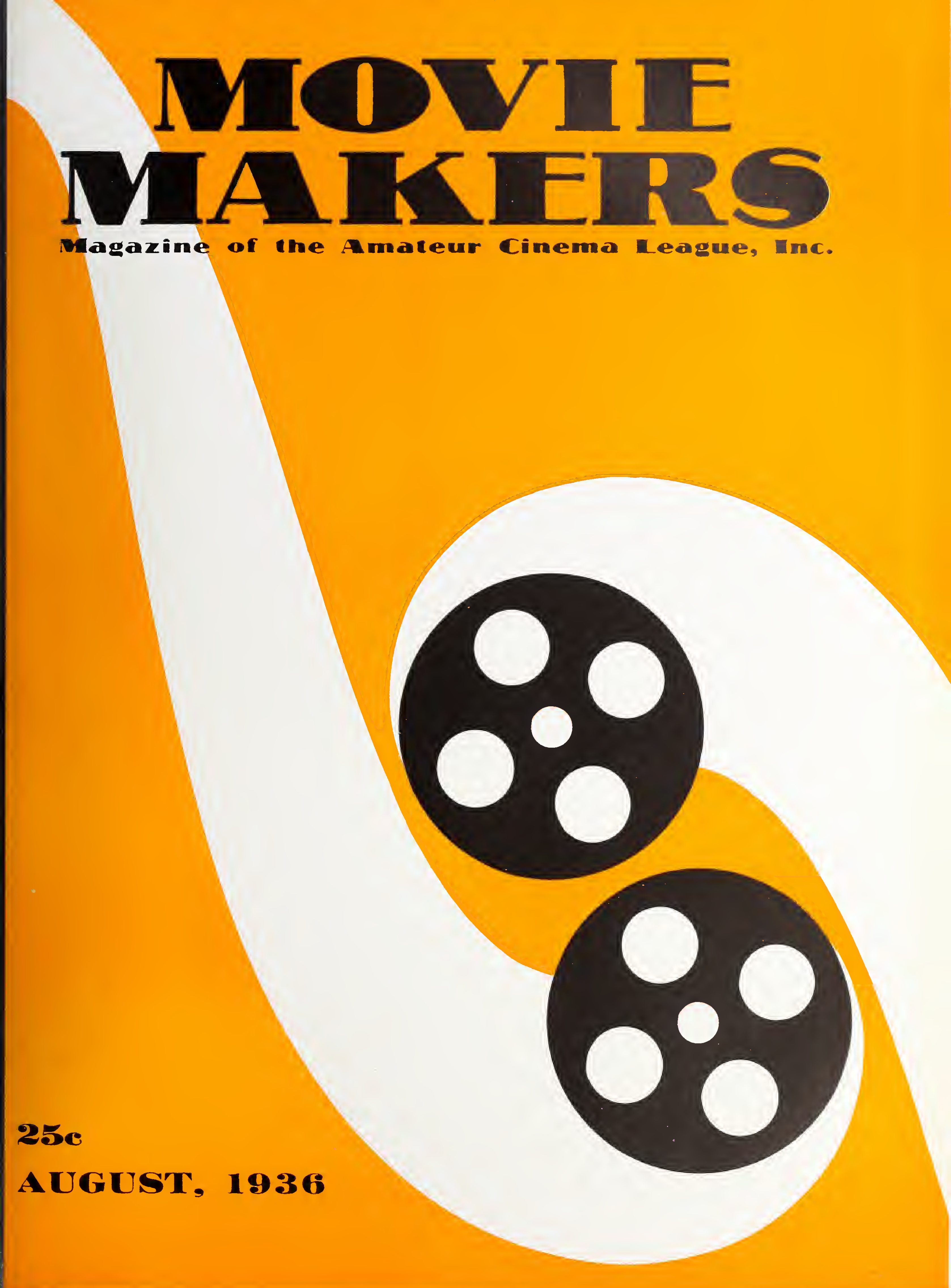
Ciné-Kodak Kodachrome, for outdoor filming with 16 mm. cameras, has won universal acclaim. With movie makers, everywhere, the swing is to Kodachrome—for beauty, for realism, for simplicity. Kodachrome, Type A, for artificial light, has been greeted with equal enthusiasm by indoor filmers. No filters, less light, amazing color faithfulness. Both are priced the same: 50-foot magazines, $5; 50-foot rolls, $4.75; 100-foot rolls, $9—including processing.

Ciné-Kodak Eight Kodachrome, announced last month, has already proved itself in thousands of cameras...on thousands of screens. Here is the one film that fits every "Eight" owner to meet the challenge of a world of color and action. No extra gadgets for all ordinary shots. Kodachrome is as easy as black-and-white; as real as life. And its price? $3.75—including processing at Rochester—for a roll that records as much action as 100 feet of 16 mm. Kodachrome Film.

Eastman Kodak Company, Rochester, N. Y.

MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.



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AUGUST, 1936

Classified advertising

■ Cash required with order. The closing date for the receipt of copy is the tenth of the month preceding issue. Remittance to cover goods offered for sale in this department should be made to the advertiser and not to MOVIE MAKERS. New classified advertisers are requested to furnish references.

■ MOVIE MAKERS does not always examine the equipment or films offered for sale in CLASSIFIED ADVERTISING and cannot state whether these are new or used. Prospective purchasers should ascertain this fact from advertisers before buying.

10 Cents a Word — Minimum Charge, $2

■ Words in capitals, except first word and name, 5 cents extra.

EQUIPMENT FOR SALE

■ BASS BARGAIN COUNTER: The weather isn't any hotter than these bargains. Act while they are available. Cine-Kodak Model K, *f*/1.9 lens, case, $75.00; Cine-Kodak Model B, *f*/3.5 lens, $29.50; Filmo 70A, Cooke *f*/3.5 lens and case, $44.50; Victor Model 5, with reverse, 1" Wollensak *f*/1.5 lens, $127.50; new Victor Model 3, five speed, *f*/2.9 lens, $52.50; Filmo 121, *f*/3.5 Cooke, like new, $52.50; Filmo 70D, 1" Cooke *f*/3.5, 1" Cooke *f*/1.8, 2" Cooke *f*/3.5, with case, $164.50; Victor Model 3, three speed, *f*/3.5 lens, $37.50; Simplex Pockette Model CC, Hugo Meyer *f*/2.8, focusing mount, $52.50; Stewart-Warner 8mm., *f*/3.5 lens, $19.50; 200 watt Model 57 Bell & Howell projector and case, $42.50; 250 watt Bell & Howell Model 57G projector and case, $55.00; 100 watt Keystone Model B-62, motor drive, $16.50; Kodascope Model 20 projector, 8mm., like new, $16.50; RCA sound on film projector, 100 watt bulb, with amplifier and speaker, $97.50; $650.00 Ampro S.O.F. projector, complete with amplifier, like new, $350.00; Bell & Howell Character Title Writer, complete, $15.00 each; Willo Cinemeter, complete with leather case, $4.35 each; Leudi cine exposure meter, $2.15; Electrophot photo exposure meter, $5.50. LENSES: 1" Hugo Meyer Plasmat *f*/1.5, A mount, $39.50; 1½" telephoto *f*/4.5 for Model 60, like new, $27.50. Triple convertible Hugo Meyer Plasmat telephoto set: 6", 4¾" and 3½", interchangeable C mount, complete, $42.50; 78mm. Kodak telephoto for Cine K, $27.50; 12½mm. *f*/1.9 lens for Keystone or Stewart-Warner 8mm., $25.50; 1½" telephoto *f*/3.5 lens for Keystone or Stewart-Warner 8mm., $22.50. Write to America's leading cinema headquarters for latest and greatest Bass Bargaingram No. 224. BASS CAMERA COMPANY, Department CC, 179 W. Madison St., Chicago, Ill.

■ SELECTED 16mm. library films in excellent condition at 20 to 60 per cent discount; also bargains in equipment. J. B. HADAWAY, Swampscott, Mass.

■ BARGAINS: USED SOUNDFILM PROJECTORS, 16 and 35 mm.; sound heads; amplifiers; horns. Catalog mailed. S. O. S. CORP., 1600 Broadway, New York.

■ FULL LIST PRICE ALLOWANCE of $34.50 for your Model 20 8mm. Cine-Kodak toward the purchase of a new 8mm. Bell & Howell straight or double eight camera, or Model 60 Eastman Cine-Kodak. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ IF you have a Cine-Kodak K, *f*/1.9 lens and case in excellent condition, will take same and $50.00 additional in cash and ship you the new EASTMAN MAGAZINE LOADING CINE-KODAK with *f*/1.9 lens. List $125.00—brand new direct from factory stock. SUNNY SCHICK, National Brokers, Fort Wayne, Ind.

■ EDITING and Rewind Disc—facilitates handling of film in getting it into rolls for editing or storage. For use on Eastman rewind, $3.00; B. & H., $3.50. ERNEST M. REYNOLDS, 165 E. 191st St., Cleveland, Ohio.

■ FOR SALE: Model 80 8mm. Kodascope complete with case, 300 watt globe, practically new, $69.50. H. L. JENKINS, P. O. Box 173, Arcata, Calif.

■ RCA 16mm. SOUND PROJECTOR, 500 watt Biplane lamp, 1600 foot arms, complete ready to operate; in perfect condition, $175.00. BOX 194, MOVIE MAKERS.

■ IT'S FREE! Latest catalogue on real bargains of 8mm. and 16mm. movie equipment. Write Now! ELDER, Dept. MA-4, Chelsea, Mass.

■ PROJECTORS: Victor Model 25 s-o-f, $225.00; Victor 10FH silent, $60.00; B&H 129-B, 750 watt, $160.00; Eastman Special, 1" *f*/1.9 and 15mm. *f*/2.8 lenses, extra 100 foot magazine, new price $478.00, our price $325.00. J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

■ AUGUST CLEARANCE OF MOVIE BARGAINS FROM PHOTOGRAPHIC HEADQUARTERS: All merchandise sold on 10 day trial. *New* 16mm. Victor Model 3 with *f*/2.9 Dallmeyer, $57.50; 16mm. Model K Kodascope projector, $69.50; 16mm. Magazine Cine-Kodak, *f*/1.9, $84.50; Zeiss Kinamo, *f*/2.7 Tessar, $37.50; B & H projector, 200 watts, in case, $57.50; Filmo 70 DA, *f*/3.5 Cooke, with B case, $187.50; Weston Model 650 meter, $17.50; Cine-Kodak 8, *f*/3.5, $29.50; Simplex Pockette, *f*/3.5, $37.50; 16mm. DeVry camera, $12.50; 1", *f*/3.5 Taylor Hobson Cooke lens, universal focus, $12.50; *new* Parallax View Finder for Simplex Pockette, regularly $15.00, special $11.95; 250 watt Kodascope K with case, $72.50; 300 watt Willoscope projector with case, $27.50; Risdon movie camera and Excel projector, both for $22.50; *new* 1", *f*/1.5 Wollensak Cine Velostigmat lens, regularly $50.00, special $29.50; *new* 1" *f*/3.5 Cine Verito lens, regularly $25.00, special $18.50; 16mm. Q.R.S. camera, $12.50; 35mm. DeVry *f*/3.5 camera, $44.50; 6" Taylor Hobson Cooke Telekinic lens, $54.50. All above merchandise used unless otherwise specified, but guaranteed in perfect condition. Sold on 10 day trial; satisfaction guaranteed or your money back. Send your order today before these bargains are all sold and write for your FREE copy of Central's new Summer Clearance Book, packed with hundreds of sensational bargains, new and used. Used equipment accepted in trade. Write today. Address CENTRAL CAMERA CO., 230 S. Wabash, Dept. D-18, Chicago.

Make a TEN BEST film this summer —

Take advantage of your vacation this year to make a picture that you will want to enter as a candidate for MOVIE MAKERS selection of the TEN BEST of 1936.

Remember that all movie subjects are eligible. Whether you spend your vacation in the mountains, at a resort, at the shore or in traveling abroad, the picture that you make can be a candidate for Ten Best consideration. It isn't necessary to find an unusual subject — just plan your picture carefully and do your best work when you film it.

After the picture is completed, send it to the League's consultants for final review, and it will be considered automatically for the Ten Best. If you are not a League member, simply send your reels to MOVIE MAKERS with a letter stating that the picture is being sent for Ten Best consideration.

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So that the staff of MOVIE MAKERS can be certain as to which class a film belongs, it will be necessary to supply a certificate concerning the picture's standing in this regard. The certificate should be made in the following manner:

Place ....
Date ....
I, ...(name)...................., certify
that I did / did not receive compensation
from a client for a motion picture
made by me entitled ....
(name of film)........................
............(signature)............

Before the final selection is made, these certificates will be requested individually from all movie makers whose films are being considered. However, it would be advisable to execute this certificate and to send it with the film rather than to wait for the final request for it.

Send a film for consideration for

MOVIE MAKERS 1936 TEN BEST

The last day for entries will be October 15

MOVIE MAKERS
420 Lexington Ave., New York, N. Y.

■ AGFA 16mm. reversal film, Dufaycolor natural color film and equipment; big savings! Bulletin Free. ACME CINE, Box 794, Lima, Ohio.

■ BIG bargain lists for 2 stamps; amazing prices paid for old or new cameras, etc. Trades accepted. BLOCK CAMERA EX., 1451-M, Broadway, New York.

■ EASTMAN SPECIAL CAMERA, like new and perfect, complete with *f*/1.9 lens and 3" telephoto *f*/4.5 lens, in Cherry Box; complete with all features and 100 ft. magazine; list $420.00; our cash price complete, $285.00; no trades; guaranteed perfect or your money back. SUNNY SCHICK, NATIONAL BROKERS, Fort Wayne, Ind.

■ USED BARGAINS: Keystone 8mm. camera, *f*/3.5 lens, $18.50; Cine-Kodak 8 Model 20, *f*/3.5 lens, $19.50; Victor Model 3, turret with 1" *f*/3.5 Cooke lens, $65.00; Filmo Model 70D with 1" *f*/3.5 Cooke lens and case, $110.00; Keystone Model A-3 camera, *f*/3.5 lens, $24.50; Kodascope 8 Model 20 projector, $12.50; Kodascope Model C, 100 watt bulb, $17.50; Willoscope Jr. projector, 200 watt bulb, $19.50; Willoscope Sr. projector, 300 watt bulb, $23.50; Kodascope Model B projector, 250 watt bulb, $59.50; B & H Filmo projector 57 C, 200 watt bulb and case, $50.00; B & H Filmo projector 57 C, 250 watt bulb, with variable res. and ammeter and case, $75.00; B & H Filmo projector Model S, 500 watt bulb and case, $110.00; B & H Filmo projector Model JS, 750 watt bulb and case, $168.00; R.C.A. sound on film projector complete with speaker, $275.00; B & H sound on film projector complete, $645.00 model, $300.00; Thalhammer Jr. tripod with tilt and pan head, $15.00; B & H Filmador for storing 3-400 ft. reels, $2.75; B & H Character Title Writer, $15.00; Kodacolor filter attachments for *f*/1.5 or *f*/1.8 lenses, $2.50; Trac Bloc letter titling outfit complete, $1.00; Stineman 16mm. printer, $40.00. WILLOUGHBYS, 110 W. 32nd St., New York.

EQUIPMENT WANTED

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK, National Broker, 402 W. Washington, Fort Wayne, Ind.

■ WANTED: 16mm. Library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

■ WANTED: Used Victor 4 or 5, good condition; cash deal. CARL ANDERSON, 3716 Sheffield Ave., Los Angeles, Calif.

FILMS FOR RENTAL OR SALE

■ 8MM., 16MM., CARTOONS: Popeye, Mickey Mouse, Betty Boop, others. List free; state width. LINCOLN FILM SERVICE, Box 293-H, Saginaw, Mich.

■ 8 AND 16mm. films, Popeye, Betty Boop, Hal Roach "Our Gang" comedies and many other subjects. Catalogue free. EXCEL HOME MOVIES, 622 Madison Ave., Toledo, Ohio.

■ "HUMMINGBIRDS"—that built a nest on a street sign in Hollywood! This unusual film starts with the eggs and carries through until the fledglings are ready to leave the nest. Closeups of the mother feeding the baby birds are featured. Send for free, illustrated booklet. GUY D. HASELTON TRAVELETTES, 7901 Santa Monica Blvd., Hollywood, Calif.

FILMS FOR EXCHANGE

■ EXCHANGE — SILENT and SOUND ON FILM HIGH GRADE FEATURES, comedies, cartoons, etc. SILENT PICTURES, $1.00 per 400' reel. Silent catalogue No. 26; sound catalogue No. 1 available. If you are particular and want QUALITY, we ask your patronage. CINE CLASSIC LIBRARY, 1041 Jefferson Ave., Brooklyn, N. Y.

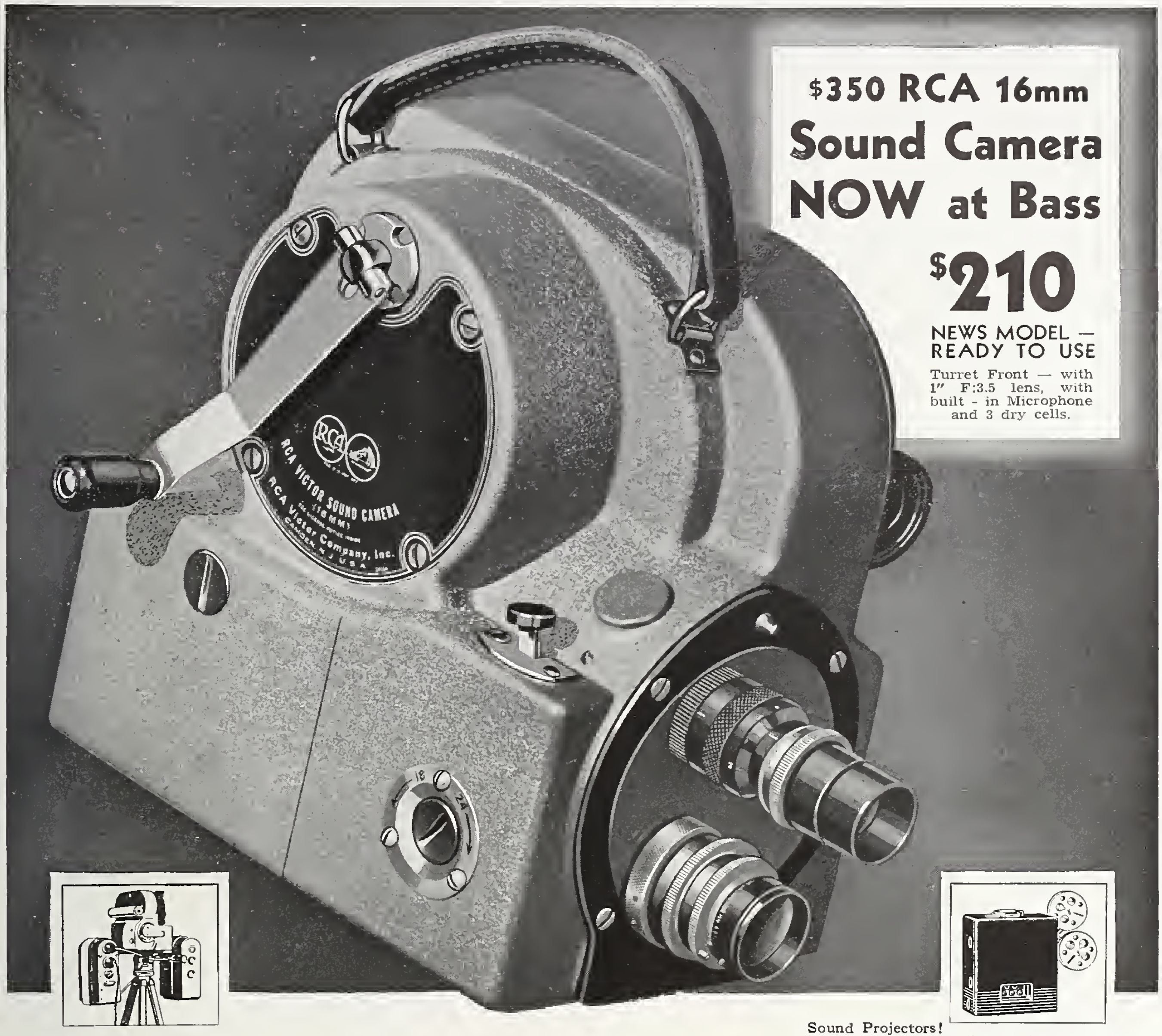
TRADING OFFERS

■ SHOTGUNS, TARGET PISTOLS, RIFLES, and guns of every description taken in trade at liberal allowances on all "still" and motion picture equipment; authorized representatives of Eastman, Bell & Howell, Victor, Zeiss, Leitz, Graflex, Weston, etc. NATIONAL CAMERA EXCHANGE, established in 1914, 5 S. Fifth St., Minneapolis, Minn.

MISCELLANEOUS

■ COMPLETE printing outfit for movie titles; presses, type, ink, paper and supplies. Write for details. KELSEY COMPANY, D-50, Meriden, Conn.

■ JUST published: "Camera Trails Through Southwest"; 75c dealers or postpaid. Send for list of camera, film bargains. "Camera Tips" bulletin free. MOORFIELD-SHANNON, Nutley, N. J.



$350 RCA 16mm

Sound Camera NOW at Bass

$210

NEWS MODEL — READY TO USE

Turret Front — with 1" F:3.5 lens, with built - in Microphone and 3 dry cells.

- RCA Studio equipment consisting of amplifier, battery box, external microphone, monitor headphones with tripod mounting, complete. List $350.00; now $150.00.
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- Kodak Reversal Sound on Film, Regular Panchromatic, per 100 feet, $6.00.
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- Bell & Howell Friction Panoram and Tilting Top Tripod at $27.50.

Sound Projectors! Bass handles them all — RCA VICTOR . . . BELL & HOWELL . . . VICTOR ANIMATOPHONE . . . and AMPRO. Write for quotations.

Now! A Sound Camera at the Price of a Silent One

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Camera Headquarters for Tourists

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DARK DAYS
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f-4 VERY DULL or in shade
f-5.6 DULL or in open shade
BRIGHT DAYS
f-8 SLIGHTLY CLOUDY
f-11 DIRECT SUNLIGHT
f-16 BRILLIANT

Simplex Pockett
TRADE MARK REGISTERED
16 MM. MOVIE CAMERA
For your SUMMER VACATIO

LIGHT AND COMPACT
CONVENIENT TO CARRY
EASY TO OPERATE AND LOA

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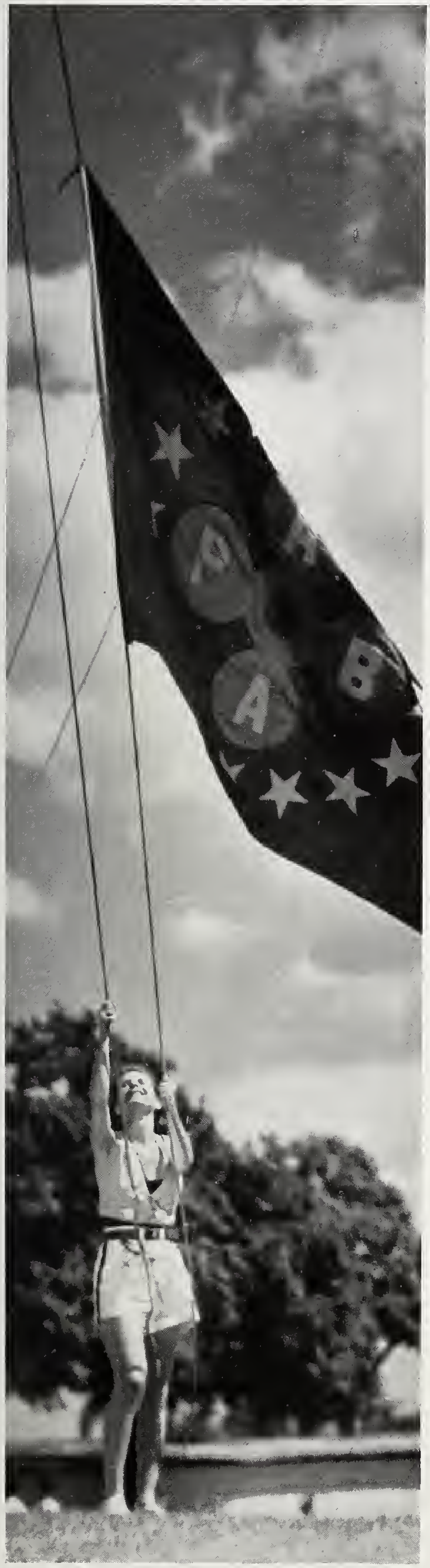
OPEN DOOR, INSERT MAGAZINE
CLOSE DOOR—AND BEGIN FILMING

INTERNATIONAL PROJECTOR CORPORATIO
88-96 GOLD ST. NEW YORK, N

PHOTOS by COURTESY OF NEW YORK CENTRAL SYSTEM

MOVIE MAKERS

Cy. La Tour



The magazine of the Amateur Cinema League, Inc.

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MOVIE MAKERS

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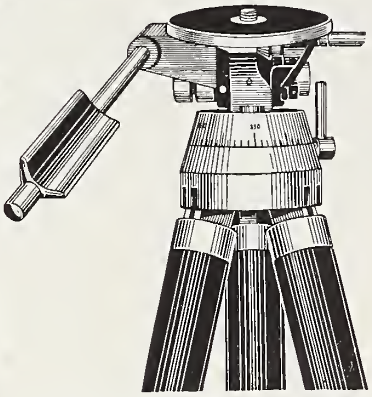
Advertising rates on application. Forms close on 10th of preceding month.

A new **LIGHT METAL**

Tripod

Ideal for All Amateur Motion Picture Cameras



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Model: 4-sections model with graduation without external indirect screw for camera and without spirit level . . . .

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Weight	3-lb. 11-oz.
Price	$22.50
Zipper cover . .	$3.00

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Featured releases

■ *This department is for the convenience of readers in guiding them to library films announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bell & Howell Co., Chicago, Ill., offers Filmosound rental subjects as follows: *Those We Love,* seven reels, with Mary Astor and Kenneth MacKenna; Felix the Cat in *The Oil Bird* and *Futuritzy,* one reel cartoon comedies; *Ikpuk, the Igloo Dweller,* one reel travel subject, photographed by Richard Finnie.

■ Robert Block Productions, New York City, offers two new films, *Tour of the World,* five 400 ft. reels, and *Behind the Circus Scenes,* two 400 ft. reels, both on 16mm.

■ The Calvin Co., Kansas City, Mo., is distributor for *The Making of a President,* in three separate 400 ft. reels. This film covers the highlights of Governor Landon's political and personal life and includes the activities at the Republican Convention in Cleveland.

■ Central Camera Co., Chicago, Ill., is having a close out sale of library films which have been used for rental purposes. Some of the titles are: *Seeking Steelheads, Simplified Golf, Lindy, Skinners Dress Suit, Felix, Egyptian Adventures* and *Harem Scarem,* each one reel; *Valley of Rogues, Forbidden Women* and *Pink Elephants,* each two reels; *Shoulder Arms,* three reels; *Marriage Market,* five reels; *The Claw* and *Lone Eagle,* each six reels. Additional titles may be found in Central's Summer Clearance Bargain Book, which will be mailed free of charge on request.

■ Cine Classic Library, Brooklyn, N. Y., has sound on film features and shorts for rent or for sale.

■ Eastman Kodak Co., Rochester, N. Y., has booklets of Cinegraph releases which will be sent on request. Both 8mm. and 16mm. films are listed.

■ Garrison Film Dist., Inc., New York City, offers foreign feature length films in 16mm. sound. *Village Symphony,* a musical short subject, is available, as well as 16mm. silent comedies.

■ Kodascope Libraries, Inc., New York City, has for rent the six reel sound film, *Fightin' Thru,* featuring Ken Maynard and his horse, Tarzan. A true Western story unfolds around these two characters and involves the usual heroine and bad men. A Mickey Mouse cartoon, *Mickey's Orphans,* and a Silly Symphony, *Mother Goose Melodies,* are also available in sound.

■ Ernest M. Reynolds, Cleveland, Ohio, has 100 ft., 16mm. scenics for sale.

Free films

■ *To borrow the films listed in this department, simply send in your name and address to Amateur Cinema League, Inc., 420 Lexington Ave., New York City, specifying the* TITLES *of the films desired. When films are limited to groups, the type and approximate size of the audience must be given. Films are loaned free except for postage. All transactions regarding booking dates and shipping arrangements are effected between distributor and applicant after the League has forwarded name and address of applicant to distributor. Please do not request a list of films from which to make a selection, as no list is available. Any one in the United States may apply for films reviewed, as this service is not limited to League members.*

■ *New-Way Farming,* one reel, 16mm. or 35mm., reviewed through the courtesy of the Goodyear Tire & Rubber Co., is of particular interest to Granges, 4-H clubs and other rural organizations, for it emphasizes the advantages of farming with modern machinery with its subsequent comfort of rubber tires and its economical use of fuel.

■ *The Benefactor* is a 16mm. silent film of the life of Thomas Alva Edison, produced in two reels by the General Electric Company, which concern, along with the rest of the electrical industry, owes much to his genius. Beginning with scenes of Edison's early boyhood at Milan, Ohio, his birthplace, the film goes on to include many of the memorable events of his life and work. Available only for group screenings.

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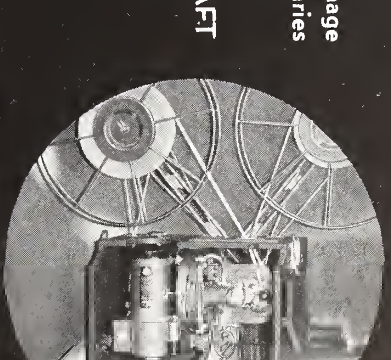

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What should move?

THE knowledge that they have an instrument that can record motion seems to throw some movie makers into a kind of paralysis of the analytical faculties, so far as these are applied to the question of what kind of motion to record. They want their films to be motion pictures and not still photographs, which is an intelligent desire; but, faced with a decision on the way to make them motion pictures, they appear to have concluded that the filmer accomplishes this by imparting mobility to the camera. The nervous panoramas and startling tilts in their footage are actually proof of a good intention that went wrong in performance.

Some preliminary thought would save a great many amateur movies from failure. It is obvious that whatever is captured on film is intended to be released later on the screen. How will it look when projected? If a movie maker cannot foresee that answer, he is a gambler and a child of chance. Even if he has some lucky accidents, his long run average will be on the losing side. A capable judgment of screen results comes with experience, but it can be got more quickly if experience is preceded by analysis.

In this business of getting motion into our pictures, preliminary analysis will bear rich fruit. Ten minutes at a window, looking and thinking about how we observe what we see, will save most of us close to fifty dollars in bad pictures. We shall discover a number of things almost at once. First, we shall learn that our eyes do not "panoram" except for the entirely practical purpose of moving from one scene to another and that, during this panoramic motion, they see almost blurred outlines of the area scanned, which, for the most part, the mind does not register, and that they come to rest as soon as possible upon some one scene which the mind has chosen as worthy of attention. This also applies to tilting the head. We shall also find that our eyes, having come to a pause upon a particular scene, make an instinctive effort to pick out a particular item in that scene for closer observation. Last, we shall conclude that when we have looked our fill at a specific incident, we move away from it with a sharp and definite finality and hunt for something else.

This analysis covers what generally happens when we look out of a window or at outdoor views. Indoors, our eyes are mostly occupied with items and incidents at very close range, after we have once established the general placement of the objects in the room. The less usual the surroundings, the longer we give to this general placement, but, normally, the mind tries to hasten the process, in order to "feel at home" and to be at ease for conversation or other action.

Translated into screen terms and those of camera action, the movie maker might state what he had found something like this. It is expensive to keep the camera running while it travels from one scene to another; therefore panoramas and tilts are almost always unserviceable. Start the camera when an interesting scene has been located by the eye. After the scene has been presented long enough for the screen audience to feel at home in it, hunt for the particularly interesting parts of it and show these by a number of closer views. When any scene has been explored leisurely but definitely, move on to another. If the picture is to be made indoors, give the audience a chance to get acquainted with the room and then get down to the business of telling what happens there by intimate scenes in semi closeup and closeup range.

This kind of simple analysis can be carried on indefinitely. If from it the filmer can set up the rule of letting the camera substitute for the eye of the audience, he will have learned how to get motion into the screen results and how to keep the motion of the camera and of himself out of the picture, an ideal that is not only modest but essential, if he would make good movies.

Should you spend your vacation in the country, study the cine possibilities of nearby farms. You will find action and beauty together that can be recorded with either "pan" and filters or color.

MOVIE
MAKERS

Wake up and shoot!

RUSSELL C. HOLSLAG, ACL

YOUR movie camera stands before you, staring at you accusingly with its one gleaming eye.

"Look here, boss," it says. "I came into your life to do great things! Don't you remember the enthusiastic plans for the movies that we two would make together, which were discussed while I sat reposing on the dealer's shelf? I was hoping you would decide on me, and I made sure that all my speeds, fast and slow motion, parallax view finder, critical focus and all the rest were in good working order.

"Then we got together. And what have we done? Last year at the football game, you forgot to use my slow motion. You bought me a telephoto lens, it's true, but that time we went out in the car and you tried a shot or two with it, you had forgotten the tripod, and you know the result. I did my best to hold still, but I couldn't manage it with the telephoto as I can with the one inch. And I need a new tripod, anyway! That old one is so wobbly that I haven't a leg to stand on any more!"

So might many a camera querulously complain to its owner, who may have the ability and imagination to use his faithful instrument to make fine movies but who simply doesn't take the trouble to fathom its possibilities. All our latter day philosophers of the practical tell us that we don't use our abilities to the full. And this applies to the camera, too, and almost everything on it. How many of the following usual camera attributes do you use as fully as its adjustment permits?

The lens seems so familiar that it has become commonplace. But it is far from commonplace in construction; indeed, it is a wonderful little instrument which controls light rays to form a precise image. Do you protect it carefully? It deserves a lens cap when you are not shooting. It deserves always to be kept clean, in order to deliver sparkling pictures. Don't clean it roughly, with any old cloth. Use lens cleaning tissue.

Is there some magic which will make a lens perform with a greatly increased excellence? Yes, there is—care and understanding. Focus carefully on closeups, using a tape line or critical focuser. When using the latter, you can become most expert if you use the "swing method." When you find the region which lies near the point of sharp focus, turn the focusing ring slightly beyond this point, then slightly beyond it in the other direction. This will help to establish the middle point of optimum focus. Continue in this way several times, each time making the limit smaller, and finally coming to rest at the point of focus between these limits. This method will do much to avoid hesitation in visual focusing. The use of a deep lens hood is always conducive to better, more cleanly defined shots, especially on bright days. If you use a turret, make a practice of keeping the same lenses in the same positions in the turret.

Filters are important accessories to any lens. Keep them clean and don't let them lie about in the camera case. Use a light green filter with panchromatic film on those pleasant summer landscape shots; you'll be surprised at the correction this filter will give the sky, too. The yellow and orange filters are good standbys for color correction with panchromatic film and distant shots, and the red filter is valuable for very distant work or for effects in which a darker sky is desired.

An interesting stunt to try with the red filter is the old one of painting a person's face in fantastic lines with bright red grease paint. With the red filter over the lens, this makeup will be invisible if the paint is not too dark a red. Now, if you quickly substitute a blue or green filter of the same factor as the red one just used, the film will show the makeup in all its details. The substitution is done while the camera is running and, by this method, a paleface may be turned into a redskin.

Of course, these particular effects cannot be produced with color film. But you can create a dark sky and obtain many other interesting effects with color emulsion by the use of a pola screen. Such effects are greatly aided in conjunction with certain types of visual focusers.

An interesting special use of the lens is gained by "follow focus" shots. Such shots are usually made indoors with a wide lens aperture, so that the depth of field is likely to be shallow. Suppose that you want to "follow focus" in making a scene in which the camera moves in relation to the subject or a scene in which the subject itself approaches or recedes from the camera. To do this properly, hold a little technical rehearsal, in which you ascertain just what limits exist for the nearest and farthest positions of the subject. Having done this, it will be relatively easy to alter the lens focusing index between these limits to suit the varying position of the subject.

A dramatic application of "follow focus" could be made in a scene of a row of subjects sitting along a table in a line nearly parallel to the lens axis. As each engages in some significant action or speech, the focus can be altered to make the particular profile stand out in sharp focus, the others being blurred. The effect, of course, will be most apparent in the subjects nearest to the camera and, to gain it in fullest measure, a wide aperture lens should be used at full opening.

Before the lens effects can be used in an infinite number of ways to add appropriate variety to one's shots. A dark gauze, mounted in a cardboard frame, will produce a diffused effect, while a white gauze will give a hazy, mistlike, foggy atmosphere to the picture. The farther from the lens the gauze or filter is held, the more pronounced the effect. The camera that is made to use masks between the lens and the aperture gives a fine opportunity for amusing and dramatic shots.

The use of an effect

[Continued on page 361]

Do you make full use of features of your cine camera?

Vacation accessories

FRANK E. GUNNELL, ACL

What to take and what to leave on vacation filming

WELL, we're on the way! After months of planning, patient waiting and growing anticipation. the day finally did arrive when we actually could hitch our more or less elaborate trailer to our motor car and start once again on a long tour of the United States. Needless to say, one great object of our trip is to bring back more and better travel and vacation pictures.

As we see it, the proper choice of movie equipment for a particular trip is a vital consideration. Regardless of whether the trip be long or short in time or distance. the movie maker will do well to travel light, in motion picture as well as in other travel equipment. Taking too many accessories, including a few in the use of which the movie maker is not thoroughly grounded, is likely to prove a decided handicap to producing good films. Sufficient time and thought to plan and to make the picture are the two great accessories needed for your camera, and if either of these must be minimized, the mechanical accessories may well be omitted.

Time is a most important cine accessory. The best movies will not be made while you are traveling, but at the places where you stop and remain a while. Extensive reading of vacation literature and a study of pictures of the places that you are to visit will help in calculating the length of stay necessary to obtain good picture results. Incidentally, a little knowledge of the average weather conditions at your stopping places will aid in determining the probable length of your stay. The movie maker whose visiting time is short will do better to pick a nearby location for his filming rather than to attempt a long, hurried trip in which his pictures have to be taken "on the run."

Thought, the second great accessory for your summer filming trip, has been involved to some degree in the planning and study mentioned above, but more is required. Before the trip actually begins, the movie maker should have definite ideas as to where he expects to do his filming, what the central themes are to be and approximately how much film he will need.

As a brief example, our plans include a stop of a week or ten days in Bryce Canyon National Park and the surrounding picturesque desert lands of southern Utah. The weather there is usually perfect for picture making, and during our stay we hope to make a four hundred foot Kodachrome film centering around the trail rides we shall take with our favorite cowboy guide.

We are on a three months' trip, during which we probably will expose between two and three thousand feet of film, so that a discussion of what equipment we have and why we have it might prove of value to other cine travelers. Incidentally, our motion picture equipment, while fairly simple, could be further minimized, if necessary, without sacrificing picture results.

First, we have two cameras, one of the heavier turret type and the other a light magazine loading camera. In the two cases for these cameras, we have all the extra lenses, filters and other accessories we expect to use, except the tripod. The tripod is in another case in which we also have a light camera support of the belt or unipod type.

Neither two cameras nor two camera supports are absolutely essential—one of each would do in most cases, and it is possible to do satisfactory work without a camera support. The turret type camera is our mainstay, and we are carrying the magazine loading camera and extra support only because we expect to do considerable trail riding where weight is a vital factor. The principal problem on the trail is steady pictures, and very satisfactory results can be obtained by dismounting from the horse before each shot and steadying the camera on the light support. The camera support could be omitted, for, by taking time to steady one's nerves and bracing the camera in any one of a dozen ways, steady pictures can be obtained. A heavy cord of the right length, with a loop on each end, offers a cheap and useful means of steadying the camera. Simply put one loop around one foot and the other around the camera and exert a steady upward pull as you film.

Don't fail to take your cine camera on a summer holiday

Our lens equipment is about as simple as it could be for a completely satisfactory traveling movie kit. Each camera has an *f*/3.5 universal focus lens for all general outdoor filming, and these lenses will take most of our pictures. An adapter makes it possible to use all our other lenses on either camera, so we have but one wide angle lens, a three and three quarter inch telephoto and a fast one inch focusing lens. Each of these is a special purpose lens, and their use has been covered in various MOVIE MAKERS articles.

Filters are essential in travel filming, for one's pictures are essentially scenic, and no scenic film is complete without clouds. However, too many amateurs burden themselves with a big assortment of filters, some of which they are not certain how to use. Our filter equipment is based on the fact that practically every time we shall need a filter will be when we are using the *f*/3.5 lenses. An adapter enables us to use the same set of filters on either camera, so we have only the following: one light yellow 2x, one darker yellow 4x and a medium red filter. all for the *f*/3.5 lenses, and yellow 2x filters for the wide angle and telephoto lenses. We also have a Kodachrome haze filter that will fit most of the lenses.

The occasional use of special effects is valuable in adding interest to travel films, but here again the cameraman must have a definite film plan in order to know when and where to take the special scenes. A special effect used without a reason is far less desirable than none at all. The principal occasions for the use of special [Continued on page 356]

He and she, not it

PAUL D. HUGON

TURNING every "it" into a "he" or a "she" is, in brief, the dominant idea back of all dramatization—cinematographic, literary or commercial. In a good photoplay, as in a good novel or a well conceived publicity stunt, there are no pure things or ideas; there are only persons, because it is only through personality that most people are able to reason back to abstractions. This obvious principle is commonly overlooked by highly educated people; hence their scenarios, their books and their advertising alike tend to be dry and boring. The life story of Pasteur will reach millions who would not look at a text on biology. A personality like Barnum or Diamond Jim will become a living manual of salesmanship. The greatest library ever presented between the covers of one book, the Bible, is remembered as a series of portraits, each typifying a purpose. A whole essay on loyalty will never reach half so many people as the simple tale of Ruth and Naomi. Concrete reality, animated in human form, is our first object of attention in life and frequently remains the only dominant interest.

That simple observation gives us the key, at once, to a hundred problems of the amateur scenario writer. Once we know how to turn a fact, an event, a principle, a project, into a person, we know how to write a drama that will appeal to the greatest audience. And since persons move in Time, the treatment of personality will necessarily be a story of evolution or development. Even a transatlantic tunnel would hardly thrill us, were it not made the all absorbing purpose of a great engineer, who sacrifices to it his love and even his son's life.

Here is a dentist who makes better plates. Will he show on the screen the manufacture and fitting of his dentures to a number of patients? No! He will tell the story of a woman whose happiness was ruined by ugly or missing teeth (or of a man who was handicapped by the same cause). He will show, by way of contrast, a charming young person unattainable by her suitor because of his physical defect. Then he will briefly remedy the trouble and let the romance or the career bloom to a satisfactory conclusion. That is reducing the situation to an oversimple formula, of course; yet that formula is as basic as fondant to candy making. The flavoring can be varied in a thousand ways, but the foundation always must be substantially the same.

It is on the details, on the flavoring, that originality should bear, not on the essential human basis.

Here is a social agency that wants to induce the mothers of babies to bring them to a free clinic. Mere views of the plant, the nurses and the doctors may remove certain misunderstandings as to what goes on inside the walls, but these things will have little emotional appeal. Let the simple story be told of an ailing child contrasted with a healthy one, followed through a life of misery or happiness, and every mother in the audience will do the figuring for herself.

Or, to take perhaps the most difficult subject in the whole field of industrial filming, here is an ink manufacturer who is anxious to increase his sales. One ink is pretty much like another, and ink is a dirty subject at best. What can be done to drag a human interest story into ink? Probably the publicity man will toss about in bed for many a sleepless night while figuring it out. It will not do much good to use an ink bottle bearing the firm's brand on a table, or placards on the walls, as the background of a love story. "Planted" publicity creates a negative reaction. But how can ink be personalized? Perhaps it can be done through the loss of a birth record that is essential to prove that the girl is not really the daughter of a tyrannical parent; perhaps through the fading of a will but, in any case, through the *use* of ink as it affects human happiness.

Ideas may be fine but a movie must offer real people

Keystone View Co.

Even industrial and educational ideas can be personalized

Purely dramatic plots, those written for the sake of the heart thrills, without ulterior object of publicity or propaganda, should turn around a purpose embodied in a person. Courage, daring, mother love, ambition—how many ways there are to make them live! Here is a child whose mother, perhaps innocent, probably morally justified, went silently to the gallows as a murderess. Wherever she goes, the child is hounded by the mob, pursued by the vile attentions of men, shunned by the respectable; yet, even while forced to wander from place to place under false names, she retains her own defiant determination to lead a normal life. (That is the plot of *Give Me Tomorrow*, by William Farquhar Payson.) Who could fail to extract drama aplenty from such a purpose, thwarted at every turn. It is in no way adventitious or fabricated; no coincidences, no catastrophes are necessary; pure character development suffices to the very end.

To discover such a dramatic plot, the writer has only to look around him and to try to isolate a dominant idea of which people may be considered the expression (without necessarily going metaphysical about it). Then, he will make that idea even more powerful in the lives of the characters than they themselves realize, and finally he will select, out of his own experience, the background in which that idea will most naturally be thwarted. The plot will arise as naturally out of this conflict as weeds out of newly turned sod.

Every reaction of character against environment has plot possibilities—a truly unsophisticated person in New York or Hollywood, a city "wisecracker" among silent farmers, a sensualist in a community of

[Continued on page 353]

Tips from movie travelers

JAMES W. MOORE, ACL

Cine hints from others who have been there before

IF you haven't sailed already for Europe, you probably are going to almost any day, so that it may not be out of order to pass on a few of the first hand tips which come to League headquarters from helpful members. After all, there is nothing quite so satisfying as a little "inside dope."

A long time ago, we suggested opening a film of travel with a dramatic shot of the giant whistle on your ship bursting into action. It must have been a pretty good suggestion, for, since then, we have probably seen closeups of every whistle in the North Atlantic trade.

Now we're going to try for another bull's eye. Why not work out something around the labels which one plasters over the bulging luggage? You might start with hands closing a bag. The side of it would fill the frame as hands come into the scene again to paste over the bag's flank a colorful sticker indicating the ship, the line and your destination. From this, the scene dissolves, or cuts, to a rather similar shot of your bags on the pier. In one way or another, they are now removed, disclosing a general view of the ship or the gangway or something salty in the background. One simple method would be to film the white sleeved arm of the steward picking them up. A more cinematic device, if there is light, would be to have the bags draw slowly away from the camera, on a moving belt, a hand truck of luggage or in a rope sling which carries them on board. Be sure not to "pan".

The London Tower with the bearskin worn by its guard

F. S. Lincoln

Once on board, there is nothing much to filming a short sequence of departure—except finding the time to do it. If you are genuinely interested in doing a good job, our advice is to get aboard early, see to the few necessities of arrival and then turn as hard boiled as your nature allows. Leave the flowers, the fruit and the farewells of excited friends to your wife (poor soul!), grab your camera and disappear. Only in this way will you get the necessary shots of passengers streaming up the gangway, baggage swinging on board, tugs puffing up alongside and taking lines from the ship, and the final thrill as your ship begins, imperceptibly at first, to slip away from the restraining pier.

On the way across, you may or may not wish to film highlights of the voyage. Our taste runs to sequences of the ship itself—its look and the life of its people—as well as the more usual stuff on deck sports, boat drill and afternoon tea. We are still looking for that ideal sequence of the sailors washing down in the early morning light.

When it comes to shooting scenes from the ship—sunsets, a passing steamer or your first landfall—take the advice of W. C. Goeben, ACL, who reminds one wisely that "there should be some foreground in every long shot. Scenes from on board the boat will be immeasurably more effective with lifeboats or other parts of the ship's gear framing one's view."

Let's suppose that you make your first landfall at Plymouth or Southampton. Within easy reach of these ports, in a section of southwest England as yet little visited by tourists, A. Scott Moorhouse, ACL, has been kind enough to suggest a number of places ideally suited to the movie making traveler. With the general idea of basing the continuity on Tennyson's *Idylls of the King*, he advises: "Visit Glastonbury, a ruined abbey in the Vale of Avalon where, legend has it, is buried the Holy Grail. Get scenes in Tintagel, in Cornwall, where stand the remains of King Arthur's castle, with Merlin's cave at the foot of the cliff. Here, Uther Pendragon took by force the lovely Queen Igraine, starting the whole story of the Arthurian legend. Then one should film Winchester, where, in the Great Hall of the Castle of Winchester, is hung the Round Table of King Arthur. Sennen Church, near Land's End, would be included. There, King Arthur and his knights thanked God for victory after a battle so fierce that a mill was worked with blood. Finally, get St. Just in Roseland, burial place of Geraint of the Round Tahle, who married Enid and 'crowned a happy life with a fair death'."

Or, if you're looking for color subjects, Mr. Moorhouse suggests that you turn your camera loose on "the green fields of Somerset and red ploughlands of Devon. Try a series of angles on the sheer cliffs of Cornwall, with the blue sea curling over the rocks. Study the bleak grayness of Stonehenge for contrast, look for the purple of Exmoor heather and keep an eye peeled for cider orchards with their whitewashed trees."

While still in the country, you may find yourself in harmony with the admittedly unorthodox feeling of Dr. Robert W. Shearman, who writes as follows: "While I know that getting things in action is the primary object of a movie, yet for anyhody with a love of the past or a feeling for historic remains, all of Europe offers much that is of deep interest and appeal. It would seem almost a sacrilege not to include glimpses of castles and cathedrals, of ruined abbies

[Continued on page 359]

Winnowing seed is typical of scenes offered by Pueblos

Orville Snider from R. I. Nesmith and Associates

Tact and a telephoto

MARGARET McK. BURGE

Both are required if you would film scenes of Indians

NOWHERE in the United States are there such interesting and varied subjects as in the Southwest; nowhere are the subjects so camera shy. Tact, a telephoto lens and patience are essentials in attempting to make a film of any of the colorful themes there.

There is the Pueblo Indian who, when bedeviled by tin can tourists with snapshot cameras, is a surly, insolent individual, but who, when properly approached, is a courteous, charming, merry fellow. There are the Spanish Americans, especially the shy and proud older women who are swathed in black, fringed shawls which, because of the intense sun, achieve the vividness of a color.

There are the Navajos, who regard all that the white man does as comic and who have a fine contempt for us. There is the life of the Spanish speaking folk in the hill towns, which is simple and hard (for it is difficult to wring a living from the stony soil) but which is as picturesque as peasant life anywhere in Europe. There is the agricultural life in the pueblos, with its sowing and reaping, its harvesting and husking of corn—corn that on the ear is colored the deep purple of blackberries or the reddish pink of unripe strawberries. (Use color film here.) There is the pastoral life of the Navajos roaming with their flocks over millions of acres of mountain and desert land. There are still cowboys and cow outfits and ranches without dudes if you know where to look for them, while ruins and scenes of archeological interest are so thick one must make an effort to avoid them.

If one had time and an income, one could spend years making an adequate film of the life of any one of the three races, Latin, Anglo Saxon and Indian, that live side by side in New Mexico and Arizona. But, unfortunately, most of us can record with our cameras only the glimpses that we catch as we pass by.

Lying along the banks of the Rio Grande River for a distance of some two hundred and fifty miles are the pueblos (the Spanish word for towns). These are the villages of the Indians, which were settled and inhabited when the Spaniards arrived. They are built of adobe, a clay which is fashioned into bricks and dried in the sun. The bricks are laid in mortar of adobe and finally are plastered with a smooth coat of adobe inside and outside. The women build the houses and the houses belong to them. If you happen to arrive in the plaza of a pueblo and find a group of them at this work, you have at hand a ready made sequence.

But do not start taking a picture without first asking and obtaining permission to do so from the proper officials; otherwise you may lose your camera, and you will have no redress. Picture taking is absolutely against the law of the Indians in some villages. Do *not* try to take pictures at Santo Domingo, San Felipe, Jemez or Zuni. Twice at Santo Domingo I have seen cameras snatched from intrusive and impudent white men, opened (at what damage to the apparatus I do not know) and the film extracted.

This happened at the Santo Domingo Corn Dance on August fourth. Large signs, indicating that cameras were not allowed, were posted conspicuously. The village streets were filled with the long lines of dancers, some two hundred of them: men in white dance kilts, blue feathers in their blue black hair, turquoise and green cedar boughs on their arms and in their hands; women in black dresses, embroidered in scarlet and emerald green, with turquoise head dresses rising in terraced forms above their streaming hair.

Naked *koshares* (sacred clowns), smeared with paint and corn husks, pranced between the performers. Suddenly, at one end of the plaza, a crowd of *koshares* swooped down upon a white man in gray flannels. When they parted, one of them held a 16mm. movie camera in one hand, and from the fingers of another dripped yards of movie film. The camera was taken to the shrine made of cedar boughs and blankets and there laid at the feet of the gilt Spanish image of Santo Domingo, in primitive propitiation and penance for the insult offered. The film was carried streaming from one end of the street to the other.

Later, we saw a subdued white man counting silver dollars into the palm of the medicine man; I do not know how many. After all, you wouldn't go, without permission, into the Cathedral of St. John the Divine and attempt to shoot the communion service, would you?

But, if in one of the northern pueblos—Taos, Nambe, Picuris, San Ildefonso, Santa Clara, Tesuque—you find women plastering their houses, say good morning and ask to see the governor. You will be directed to his house. Ask him what the fee is for permission to take pictures in the village, pay it (it may vary from one to five dollars) and then return to where the women are working. Ask them if they would mind if you took a picture of the plastering, and probably with many giggles, much shy chatter and merry glances you will be given permission. If you can manage it, retire to the car where your camera should be already set up. The less conspicuous you make yourself, the less the self consciousness of your subject. Take the figures of the women which, slim or stout, will be poised and sure on the ladders. Film the women mixing the mud on the ground; take them lifting up the bucket of mud plaster. Then shift to a two inch lens and take one figure in a medium closeup as she reaches and sways, covering a maximum area with each handful of mud. Change to a telephoto of longer focal length and take the forearm and hand, as the wet, shiny mud

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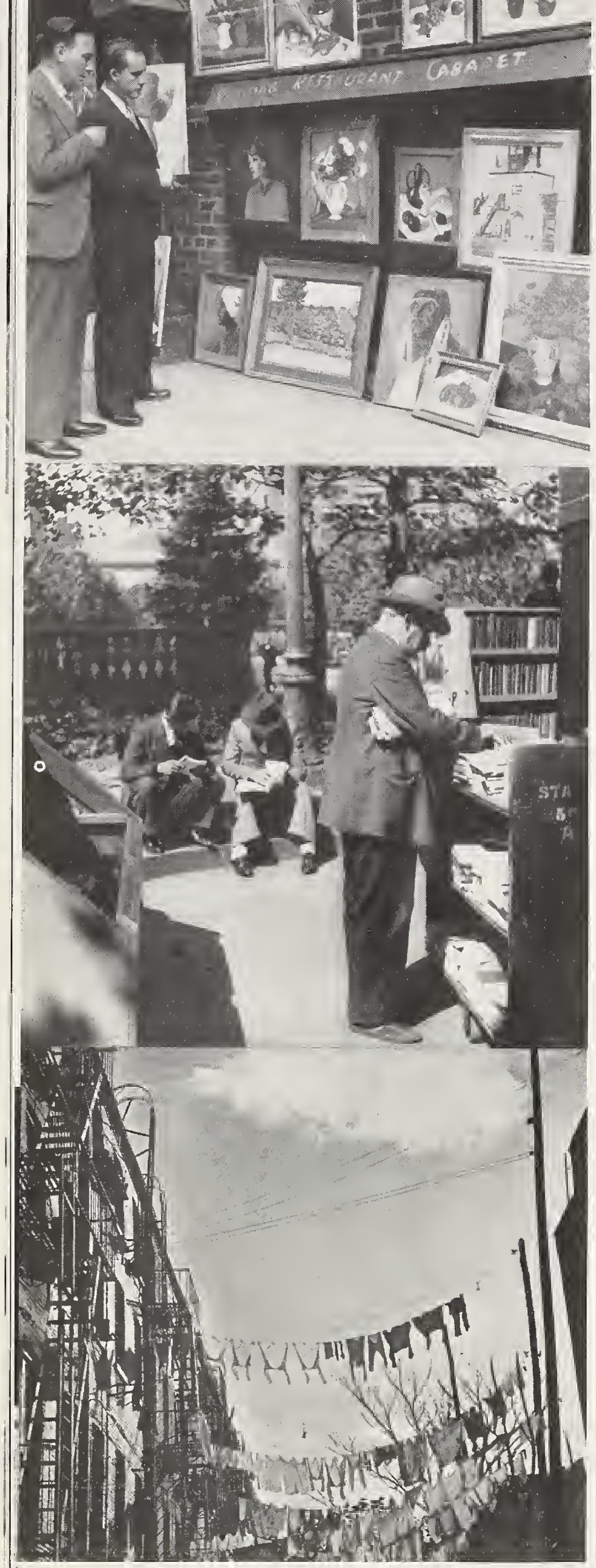
The clinic

FREDERICK G. BEACH, ACL



Top and middle photographs, Sidney Moritz, ACL; bottom photograph, Roy Pinney

City scenes that tell a story with real human interest

Local color ■ Story telling, human interest, the fresh viewpoint—these are aspects of motion picture continuity which, unfailingly, will lift the most commonplace subject matter to new levels of audience appeal. Reading from top to bottom of the "stills" at your left, we find all three in the order mentioned. In the upper view, try, if you will, to get the feeling of such a subject without the story telling addition of the two intent connoisseurs of sidewalk art. They make the shot—since paintings, like parades, athletics games, circuses and many other forms of public exhibition, are made primarily to be looked at. In the middle view, there is the deep human interest of the elderly figure at the book stall. What will he choose from the shelves of magazines and papers? A good sequence will follow this up and answer our natural query. Then, in the lower shot, one finds a fine viewpoint on a subject which might appeal to few as good cine material. And, finally, lest you think we take unfair advantage by picturing romantic Paris—or some other famed haunt of the picturesque—you should know that each of the three shots was caught right on the sidewalks of New York.

Service sheet ■ A new service sheet, in the form of a reprint of a MOVIE MAKERS article, is available to any member on request. Titled *How To Use Exposure Meters*, it deals with the fundamental technique of meter handling. Other service sheets currently available are *Tinting Data, Toning Data, A Board for Action Titles, Developer Formulae* and *Reversal Data.* These service sheets are sent in response to specific requests for information and are not mailed automatically to those whose names are on the printed bulletin list. Those members who wish service sheets must ask for them by name.

Titling ■ The popular method of using movable letters of various types for title making can be simplified a great deal if the titler is constructed so that the background lies flat while the camera is suspended above it, shooting down. This does away with the need for rubber cement or pins to make letters stay in place. If the title card lies flat, the letters may be arranged easily, and the time required to line them up is cut to a minimum.

Humidification ■ *Question:* You say that Kodachrome should not be humidified, yet we know that black and white must be. What shall I do when I have both kinds of film on one reel? *Answer:* People, who have had many years' experience with substandard motion picture film, have observed that far more damage is done by too much moisture than by too little. In fact, it is seldom that a film becomes too dry for use unless it is subjected to undue heat or to continuous projection. It is now a question as to whether it is necessary to humidify film at all, if it is kept properly. In many cases, film that has been kept for years under average home conditions and with no humidification whatever is in perfect condition. The real answer is to store film in a place that provides ideal atmospheric conditions. As near as can be determined, there is no better place than the floor of a closet or cupboard in the average home. Here the temperature does not rise a great deal, even in the winter when the heat is on. In summer, the air is always moist enough and sometimes too moist. The average movie maker who keeps his film in such places should have no trouble whatsoever. In case the film has accidentally been left on a radiator or has been dried by other artificial means, it is sometimes necessary to humidify it by moistening the blotter pads. But, during the summer, it is better to place the film in a storage place like that described above and to allow it to regain its moisture naturally. Many movie makers have projection and work rooms in the cellar, and this provides them with an excellent opportunity for storing films in a fairly cool, dry spot.

Dirty gate ■ Frequently, dust will collect in the camera gate to a point where the projected picture has a ragged, fuzzy edge. The remedy is to clean the gate every time the camera is taken out. The instruction book will tell just how the cleaning may be done best, and some camera makers supply a small brush for the purpose. At any rate, a small watercolor brush is about the best thing available and should be used often and thoroughly. In [Continued on page 354]

Technical comment and timely topics for the amateur

How insect films were photographed with good results

This little world

HENRY E. HIRD, ACL

PHOTOGRAPHING insects in action and other very small objects often has intrigued me during the ten years that my principal hobby has been taking motion pictures. With all the paraphernalia of an enthusiast and the interest of a charter member of the ACL behind me, I had never been able to get sharp pictures of small insects that filled the screen or were large enough to be of any value.

Although there is nothing new in making such pictures, it was only last summer that I arrived at a very simple solution to the problem. That solution immediately opened up a new world for pictures of real action which could be taken in my own back yard, and it gave me subject matter that is of great interest to many audiences, as I have since proved.

With a very simple device, which will be described here, it is easy to photograph an ant on 16mm. film, making it fill the screen. Or, as the accompanying illustration shows, a praying mantis can be chosen as the subject. The illustration of the praying mantis is an enlargement of the entire area of a 16mm. frame. On the screen, one can see the smallest detail of the jaws of the mantis at work as he devours a grasshopper, or one may see the silken web of a spider as it is manufactured while the spider wraps up his victim preparatory to a meal.

The principle of this type of photography is based on the extension of the lens from the camera by tubular adapters, which really take the place of the bellows on an ordinary still camera. These adapters are brass tubes threaded on either end so that they may be screwed into the camera in place of a lens, while the lens is screwed into the end of the adapter. Naturally, as the lens is extended from the film, the object comes proportionately closer and larger. Of course, the tubes are for use with cameras having standard thread lens mounts. One manufacturer of an advanced model, using bayonet type mounts, supplies a special set of extension tubes for that particular camera. This manufacturer also supplies a table of distances and field sizes to be used with the tubes.

The illustration herewith shows three adapter tubes threaded thirty two to an inch on each end (one outside thread and one inside thread). The different lengths are to cover different fields of area, whereas two or three of these may be screwed together for additional areas, if desired.

One may use any telephoto lens; the two inch and the four inch are the most satisfactory. The use of a regular one inch lens is not practical, because the object in focus is too close to the lens. Below is a table showing the length of the tubes and the area of the fields with various lenses.

Lens	*Extension tube*	*Distance from object*	*Approx. size of field covered*
Two inch telephoto	⅜ in.	14 in.	1¾ x 2⅜ in.
	¾ in.	8 in.	13/16 x 1-3/16 in.
	1½ in.	4 in.	⅜ x ½ in.
Four inch telephoto	⅜ in.	46 in.	2¾ x 4 in.
	¾ in.	28 in.	1-9/16 x 2⅛ in.
	1½ in.	16 in.	¾ x 1 in.
	2⅝ in.	12 in.	7/16 x ⅝ in.
Six inch telephoto	¾ in.	56 in.	2⅜ x 3¼ in.
	1½ in.	31 in.	1-1/16 x 1½ in.
	2⅝ in.	22 in.	⅝ x 15/16 in.

The distance from the insect has to be considered because of its temperament; your actors will not always stay "put."

These dimensions, worked out by myself, are approximately correct, but they may be varied slightly by the focusing movement of the lens itself. Two things are necessary in this type of photography for success. One is that the camera must be equipped with a critical focusing device, because the focal depth is so small that a measured distance is hardly reliable enough. The other is a so called alignment gauge, which is made for one well known make of camera. Other cameras must be centered by a reflex focusing device, which is incorporated in one camera and which may be obtained for all equipment having standard lens mounts. This is necessary so that the object surely will be in the center of the lens when the picture is taken. On all cameras, the view finder is at one side or above the lens and, unless due allowance is made for this variation, the insect or object may not be on the film at all when it is developed.

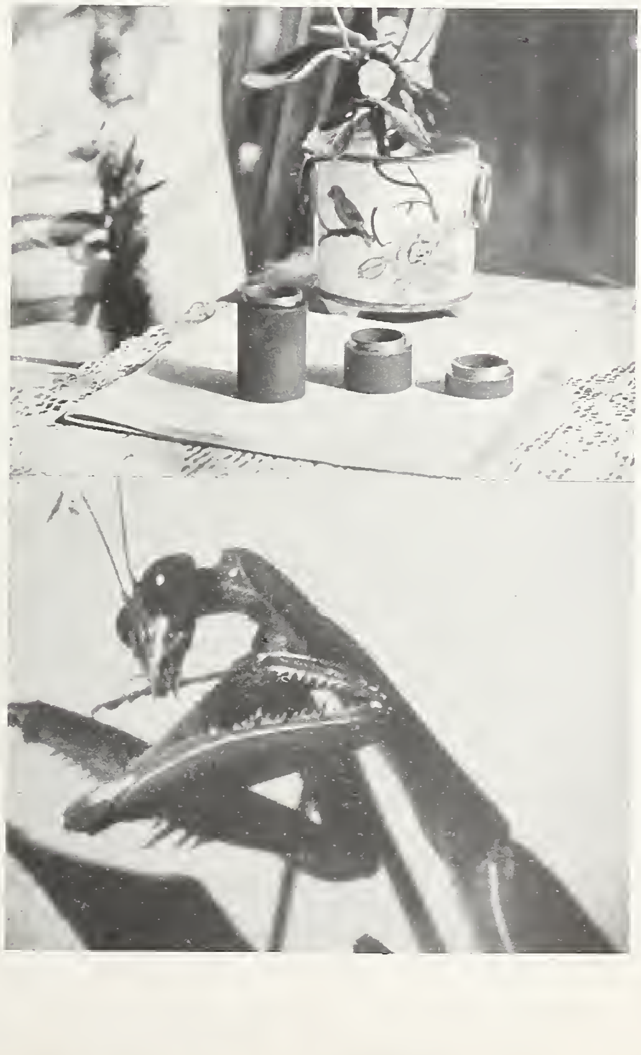
The illustration herewith is of a praying mantis taken by artificial light; I used one flood bulb placed eighteen inches from the insect. The extension tube was ¾ in. long and was attached to a four inch telephoto lens at twenty eight inches away from the insect. The field was 1 9/16 by 2⅛ in. approximately, and the stop used was f/5.5 with regular panchromatic film. Because the values of f/ numbers are greatly altered when tubes are used, a test must be made to get correct exposure.

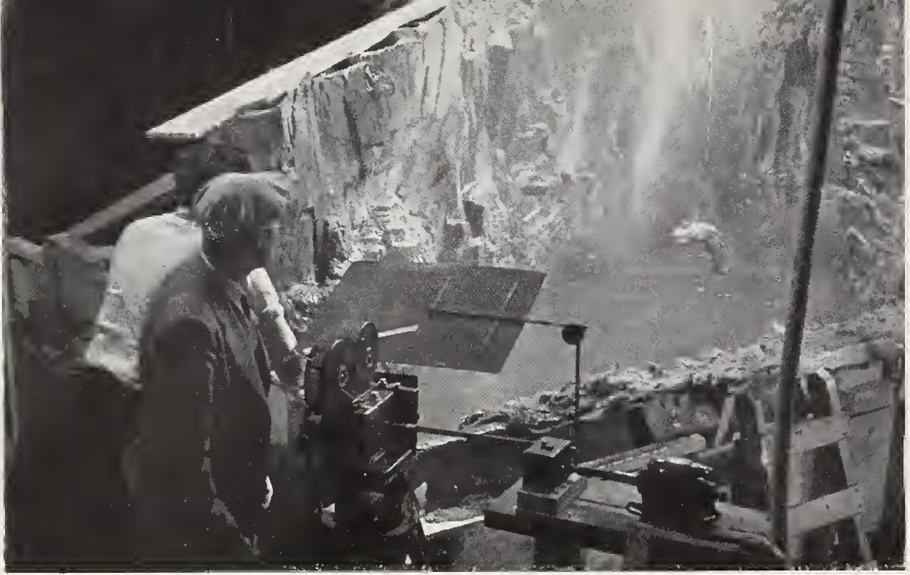
The three brass tubes were made for me on a small screw cutting lathe, from extra heavy, standard brass pipe and they were painted a dead black on the inside to prevent reflection.

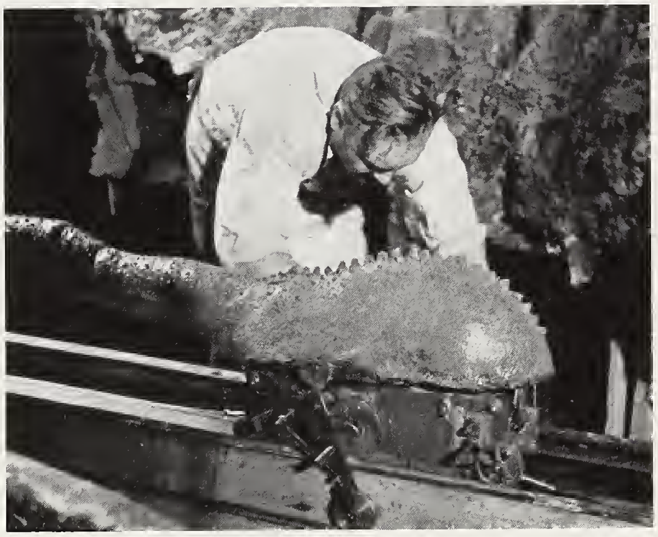
The films that may be made with this equipment are fascinating and within the reach of all.

Extension tubes and a cine frame made with one of them

Henry E. Hird, ACL







Above, the camera is set up for filming a shot of the model of the prehistoric monster traveling in the water. Note the gear arrangement for speeding up the camera to get a more realistic effect. Below is the mechanism for controlling the body movements of the animal on the track.

Miniature sets

How Hollywood is creating methods for using models

EARL THEISON

TRICK and effect photography is used in motion picture production in order to bring to the screen certain views and illusions that otherwise could not be obtained. The so called "trick photography" departments of the studios exist to improve the dramatic and narrative values of certain scenes, such as airplane crashes, volcanic eruptions or shots in which the lives of the actors would be endangered. The department supplies the needed scenes that add authenticity to the film.

Perhaps the most valuable of the special effects devices are the miniatures. In practically every motion picture, certain sequences are dependent on miniatures, and such films as *The Last Days of Pompeii*, *King Kong* and *Lost World* would not be possible without the aid of miniatures.

More frequently than not, the particularly stirring and dramatic sequences of recent pictures were aided in some way by miniatures and trick photography. That does not mean that all pictures depend on tricks, but it does mean that such illusions and devices are valuable tools in adding dramatic punch to the films.

Many things must be considered in making a miniature shot in order to avoid the unreal or "fake" appearance, and when movie miniatures are used, specially trained men, who have had years of practical experience, do the filming. Among the more apt technicians doing the work is Willis O'Brien, who is generally referred to in the studios as the dean of miniature workers. He made the films already mentioned.

Mr. O'Brien, as well as some of the other workers, regularly combines with miniatures movies previously made of foreign scenes, or adds desirable scenery by "glass shots." He also "rear projects," into miniature settings, previously photographed movies of real life actors in such a way that the actors seem to be part of the small sized setting.

The first requirement for making a miniature shot is a detailed sketch, from which is determined the construction of the set and the camera angles. The sketch also indicates the parts which will be filmed from real life and added later and shows the size in which the miniature must be constructed, in order to get the most effective shot.

If many details are required in the miniature, or if the miniature is to be photographed relatively close, then its size, or what is known in the studios as the "scale," is larger. What the studios designate as the large miniature is usually built on a one inch scale. This means that the construction and its details are reduced to one inch for every foot. A six foot man would be only six inches tall when reproduced in this scale. Occasionally, large miniatures are built when the details of the destruction of a building or crash are to be emphasized for the audience.

When a large number of buildings or cities are to be constructed, the miniature is usually built on a scale of one sixteenth inch to the foot; however, for general use, most miniatures are constructed on a half inch scale.

The materials used for the construction vary according to the screen effect desired. In volcanic scenes, such as in *The Last Days of Pompeii*, or where buildings are to be destroyed, the structures usually are made of plaster and similar heavy materials so that a proper "falling effect" may be gained. If balsa, a very light weight wood, or other light materials were used, the debris would not fall or break apart with the proper natural effect. By constructing the miniatures of heavy materials and then photographing the destruction with slow motion, the feeling of heaviness and mass is gained. Without the slow motion, the falling miniature buildings would seem unnatural and, on the screen, the debris would appear to drop a short distance rather than to fall a longer one. Various rates of slow motion are required, according to the size of the miniature and the effect desired; the smaller the scale of the miniature, the faster the camera must be operated for ordinary effects. Very small miniatures are often photographed at ten or twelve times normal speed. Such scenes as those of miniature boats, which actually are in a studio tank but which are represented as being in a storm at sea, with the waves lashing and breaking over the decks, usually are photographed at ten times normal. This gives the proper rise and swell effect to the water as well as the slow and majestic breaking of the waves over the boat. If such miniatures were photographed at normal speed, the boats would seem to be bouncing about in a bath tub. The boats are from one or two feet to twelve feet in length and usually are weighted down to the proper water level. They are made of wood or metal. The larger boats, which are usually shown in sea catastrophes, are very complete in detail, particularly when any length of film is to be shown on the screen.

In shots where only a flash of the destruction is to be shown, the general line and perspective of the miniature are developed carefully, but the details are overlooked in the interests of saving money in production. Even in short

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Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Stage to screen ■ Unable to gather a group primarily interested in the production of amateur dramatic films, Ken W. F. Cooper, ACL, keen 8mm. worker of Regina, Sask., Canada, turned to the local little theatre group for cooperation, with results suggested in the illustration below. *Bath-Sheba of Saaremaa*, an adaptation from the Finnish original, was the play, which had just served the Regina players as a vehicle in winning the Provincial Drama Festival. Mr. Cooper worked with James M. Sinclair, the stage director, in adapting the spirit if not the entire action of the play to motion picture terms. Cooperating with them were Phyllis Pinkers and Marion Robinson.

Cine Dr. Seusses ■ Gadgets were the thing at a late meeting of the Los Angeles Cinema Club, in California, according to a report of secretary A. L. Gram. More than a dozen members displayed and demonstrated nearly three times that number of simple, satisfying brain children. Rounding out the program were screenings of *Pouring a 200 Inch Mirror*, a one time Honorable Mention winner from this magazine, produced by Edmund Wellech, ACL, at the Corning Glass Works; *Krakatoa*, Academy short subject award winner, presented by Major F. J. Rutland, and a member's film on bull fighting in Mexico, D. F. The Los Angeles club reports with justifiable pride that its membership is one hundred percent paid up in dues for the fiscal year.

New York elects ■ Before going into regular summer recess, members of the Metropolitan Motion Picture Club, in New York City, elected at their annual business meeting the following officers for the coming year of club activity: Frank Gunnell, ACL, president; Walter Mills, ACL, first vicepresident; Charles J. Carbonaro, ACL, second vicepresident; Annette C. Decker, ACL, treasurer; Robert M. Coles, ACL, secretary. They will serve the club from the first meeting of the fall season, on September 17, through the June meeting of 1937.

The Metropolitan club has added sixteen new members during the season of activity just concluded. Featured on the program of the last meeting was a screening of *In The Beginning*, Ten Best award winner by Fred C. Ells, ACL, from the Club Library of the League. It was accompanied with a selection of music arranged and presented by Duncan MacD. Little, ACL.

Two in Curaçao ■ More than one hundred members and guests attended a recent meeting of the Nederlandsche Smalfilmliga, ACL, in Emmastad, Curaçao, for a presentation of *I'd Be Delighted To* and *Pipe Dreams*, from the League's Club Library. According to the report of secretary C. H. Veltkamp, ACL, the audience was hard put to it in choosing between the two subjects, preferring the cinematic treatment of the first but understanding more surely the realism of the second. Both reels were screened later at a branch meeting in Aruba.

Des Moines doings ■ In Des Moines, Iowa, the Y. M. C. A. Movie and Camera Club has announced, through its bulletin, *The Range Finder*, a recent election of officers as follows: Sam H. Dietz, president; Emmett Carlson, vicepresident in charge of still meetings; George W. Cushman, ACL, vicepresident in charge of cine meetings; Reed Snyder, secretary treasurer. Serving with them on the board of directors are Fred Gracely, Leon Smith and George Fox. Mr. Cushman will serve the club also as editor of the quarterly bulletin. Late programs of the cine section have featured a discussion on color filming, by V. T. Stoutemyer, and a talk on summer movie making, by Charles Luthe, ACL. The club will hold a number of outings during the summer months.

Toronto travels ■ The entire membership and invited friends of the Toronto Amateur Movie Club, of Ontario, recently attended a meeting of the Buffalo, (N.Y.) Cinema Club as guests of that neighboring movie group, on an expedition which was reported in *Shots and Angles*, T. A. M. C. bulletin, as a very happy interchange of club courtesies. As the Toronto-

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Producing a cine version of "Bath-Sheba of Saaremaa"

There's plenty of human interest in your own backyard

Saturday quickies

EPES W. SARGENT, ACL

JIM CONKLIN looked up at the wind torn storm clouds through which the summer sun was peeping and made a few appropriate remarks, which need not be repeated here. The general tenor of his plaint ran to the effect that if the minutely described sun had popped through the equally adjectived clouds around eight o'clock instead of waiting until after passing the meridian, it might have been possible to have pulled the photographic picnic.

Jim was not wholly to blame for the bitter savor of his speech. He had been building up that picnic for three weeks, dating two carloads of his friends for a run out to the Falls, lunch and making a picture. There were deviled eggs and sliced ham and corned beef in the ice box; George Bradley had promised to bring a case of beer; there was a fresh roll of film in his camera and a carefully typed script in his pocket. And it had rained all night and was still hard at it when the others called up to confirm their suspicions that there would be no picnic.

About noon, the skies had started to clear, but there was no way to recall the crowd and no chance to get out to the Falls in time to run the picture off. He was home for the day, with that film all ready to work and no place to go. Jim remembered how a bright penny used to burn a hole in his pocket when he was a youngster. He felt much the same way now.

Then Sylvia, his pretty little four year old daughter, came into the room on an errand, and Jim's eyes brightened. If he wanted to make a picture, why not? No chance for outdoor stuff with the yard drenched with rain, but he had some flood bulbs and even a reflector. Why not go to work? He strolled into the next room where Sally was sitting, sewing and mourning the lost picnic.

"Let's make a picture of Syl," he suggested. "I've got an idea."

"Too wet," vetoed Sally.

"But this is all indoors, though I'll need you for a couple of shots at the door. Now listen——."

Rapidly he sketched the simple plot and Sally nodded. Jim went into the living room to put flood bulbs in the chandelier and to tap an outlet for his spotlight, which could be moved about as required. Meantime Sally put two year old Junior to sleep and tucked Sylvia into a dark wash dress, dressing herself for the street.

One rainy holiday introduces filmer to new opportunity

Sylvia was put on the floor with her dolls and Sally, in street dress, entered and kissed her goodbye with a warning to be good. Then she got out of the scene and Jim outlined the next shot to the child. He did not tell her elaborately what to do but merely suggested that she get tired of dolls and want something else. Not too heavily burdened with direction, the youngster pouted at her doll, slammed it into its cradle and looked about her.

"That's fine," encouraged Jim, almost in a whisper. "Now go look out of the window."

The child looking out of the window formed the next shot. The sun had obligingly hidden behind a cloud again, and the child was silhouetted against the dreary sky. Jim called her to him and she walked out of the scene.

Jim moved the lights into the kitchen and turned his attention to the "props." With Sally's aid, he made up a five pound bag of flour, assembled the sugar and the baking powder, a yellow mixing bowl, a large wooden spoon and a cake pan. Then Sally left the room, Jim explaining that with both of them present he could not hold the child's attention. With Sylvia alone, he worked out his scenario, changing camera position frequently to give angles and variations between medium shots and closeups. He spoke in a conversational tone, giving as few directions as possible, the action running something like this:

Sylvia tiptoed into the room and looked about her. The materials on the table (in closeup) caught her attention. She would make a cake. She pulled down the mixing bowl and put it on a convenient chair. When she took the flour, Jim had a stroke of luck because she dropped the bag on the floor and spilled it. Her look of amazed horror was voted a fine bit of acting. It wasn't. It was purely natural. Jim's quick "That's fine!" reassured her. She scooped the flour from the floor into the bowl and proceeded to mix her cake with liberal additions of baking powder and sugar. She broke in a couple of eggs, getting her hands and face badly smeared, transferred the mixture into the cake pan and slid it into the oven.

Then she was invited to sit in the corner out of the scene and watch mother act. Sally, still in her street things, entered, looked with horror at the mess on the floor, sniffed, looked at the oven, to see smoke coming through the cracks around the oven door (done in a closeup with brown paper in the oven to make the smudge). She opened the door and disclosed a badly burned mixture in the cake pan (done by smearing the original mass with blacking). Comprehension dawned, and she smiled a tender little smile, dumped the cake into the garbage pan and left the room.

She returned, this time bearing a cake, which she placed in a somewhat similar pan and went out again. Then Jim shifted the lights to Sylvia's room. Sylvia entered, threw herself on the bed and dropped off to sleep. In a second scene, Sally entered, looked at the little sleeper, lightly kissed her and went out, returning to waken the child and lead her out.

A brief shot in the bathroom showed Sylvia being scrubbed up, and then came a return to the kitchen and the production of the cake, with Sylvia inordinately proud of her supposed success, and the picture ending with Sally scrubbing up the floor and Sylvia in her chair munching on the cake.

After that, Jim took two shots each of Sally leaving and entering the house, the second

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Cine climbing

CHARLES COLES AND ROBERT COLES, ACL

SUMMER trips often give the movie maker the opportunity of filming hikes or even mountain climbing. A little advance consideration helps a great deal toward making the record of such adventures thrilling and entertaining.

A film of mountaineering should accomplish three objectives: first, it should interest the audience in the undertaking; second, it should be continuously entertaining, building interest toward an exciting climax; third, it should culminate in the achievement of the peak or objective, thus satisfying the audience that the undertaking was successful.

Working up the interest of the audience is essential at the beginning of the film. Long shots of the objective may be shown; if possible, add some shots of the party against the background of the mountain. Preliminary titles for this section of the film will give some idea of the general magnitude of the undertaking, the probable time it will take and the altitude of the mountain. Dramatically worded titles do much to set the stage.

Be sure to give adequate footage to the very interesting action of making plans and preparations. Fine camp shots, showing the base of operations, gathering the equipment and packing knapsacks, can be included. Intimate shots of breakfast being cooked preparatory to the climb will present an opportunity to introduce the members of the party. Try to present them all, as it is rather disconcerting to an audience to have a stranger suddenly appear half way up the mountain for the first time and without explanation.

Many long climbs start in the night or early morning. Obviously, you will not have time to spend at the start of the actual climb. You may, however, reenact the start the following morning and so obtain this essential scene. A flare, disguised as a camp fire, will give an authentic atmosphere to the night start on the trail.

If the start actually has been made before dawn, a very unusual effect is to show the sunrise as seen from a height. A long focus lens and a camera speed of eight frames a second make the sun appear to rise rapidly enough to make the shot dramatic. A small aperture is, of course, used. A shot of the peak, as first revealed by the morning sun, is very impressive and awe inspiring.

In the lower stages of the climb when the party is on the trails, the emphasis should rest on the scenic aspects. Intersperse intimate views of the members of the party, struggling with their packs, with shots of the rugged scenery well framed in trees. Avoid too many scenes in which there are no members of the party. The strength of the continuity rests upon showing the group climbing. Introduce shots by showing climbers stopping to admire some view, and then cut to the scene itself. Avoid "panoraming" from the hiker to the scene (or at any other time).

Early in the art of amateur movies, somebody had the brilliant inspiration of asking a climber to demonstrate his dramatic talent by pointing to the scenery. This may be done once in a film, but preferably not at all.

Hikers on the trail are more interesting if shown coming toward the camera, so try to be at, or near, the head of the party. Of course, all your friends will have been cautioned not to look at the camera.

Flowers along the trail lend beauty, particularly in color, and closeups of the hikers' feet passing nearby will sustain the continuity. Remember the personal incidents—the stop for breakfast, the drink at a mountain spring. Be on the watch for animals, particularly in the early morning.

Advice for those who would record mountain ascents

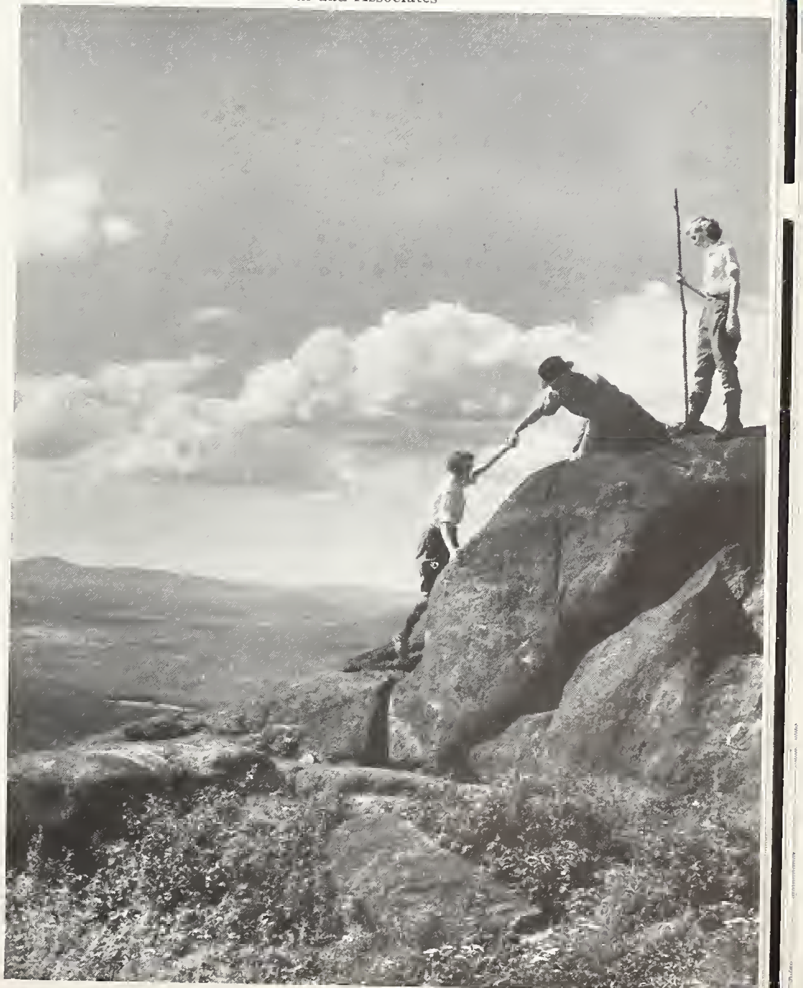
The test of the movie maker's skill occurs when the climbing becomes steep. It is far from a simple matter to give the audience a proper idea of the difficulty and steepness of the climb; however, it may be done by observing a few basic principles. Find a camera position from which the action may be photographed with the lens axis horizontal. In other words, don't shoot up or down when filming the climbers. Since you must project your picture on a vertical screen, the audience unconsciously assumes that the scene was photographed on film held vertically. For the best effect, film the human figures against the sky. To show great height most effectively, the horizon or distant mountain should appear in the lower half of the frame. Closeups of technical methods of climbing, such as backing up a chimney, or rope work, are interesting if the climbers have enough experience to employ these methods.

It usually happens that the most difficult parts of the climb are so narrow that there is little chance for the cameraman to get far enough to the side to make an effective photograph. It is better, therefore, to watch for scenes in the less difficult parts of the ascent, where the cameraman can use the proper viewpoint. By staging short ascents along the climb, better pictorial effects can be filmed, more viewpoints may be obtained and the audience can be given a better idea of the difficulties surmounted on the more hazardous parts of the climb. In all probability, when bad places are reached, the movie maker will have

[Continued on page 358]

Stage short climbs to produce better pictorial effects

H. W. Fechner from R. I. Nesmith and Associates



FINEST IN

Ciné-Kodak Eight "60"

. . . FINEST OF THE ECONOMICAL EIGHTS

CINÉ-KODAK Eight, Model 60, uses low-cost Ciné-Kodak Eight Panchromatic or Kodachrome Film. Its ultra-fast *f*.1.9 lens fits the "60" to bring out the best that is in these two splendid films. From sun-up to dusk outdoors; from nightfall until "taps" indoors—around the clock is easily within the range of the "60." Its standard lens is interchangeable with a 1½-inch telephoto lens ($37.50 extra) permitting a three-times magnification. The interior of the Model 60 has an engine-turned finish; the exterior, durable gray cowhide and brilliant chromium. Price, with similarly finished de luxe carrying case, $91.50.

Ciné-Kodak Eight, Model 20, has an efficient *f*.3.5 lens, is every ounce a movie maker, and is priced at only $34.50.

The Model 25, similar in appearance and appointments to the Model 20 but with faster *f*.2.7 lens, is priced at $45.

Magazine Ciné-Koda

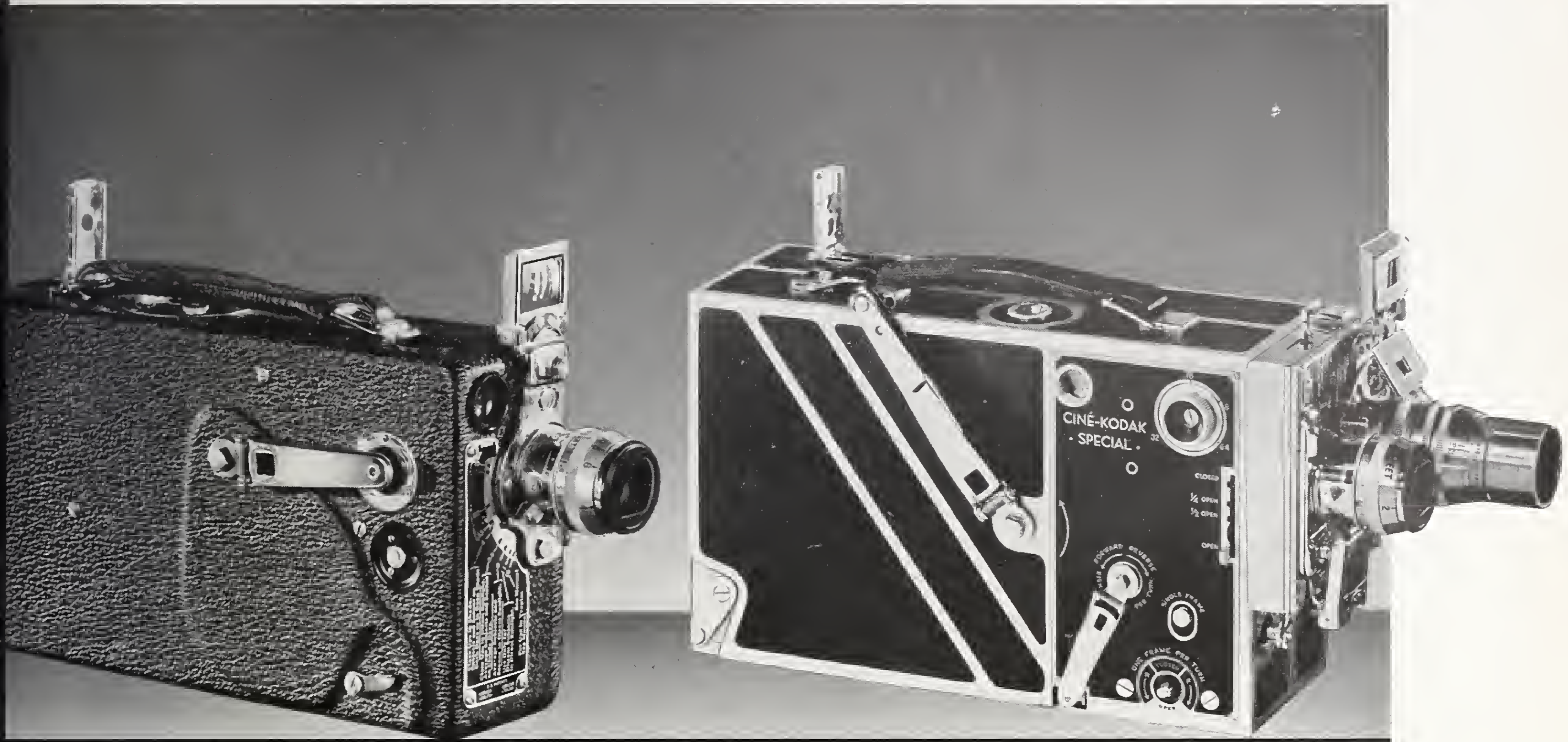
. . . THE 16 MM. CAMERA THAT LOADS IN 3 SECONDS

YOU can load Magazine Ciné-Kodak with you
eyes shut. No threading—slip a magazine into the camer
and close the cover. Then shoot.

Suppose you want to switch film—make a few color movie
with either regular or Type A Kodachrome, or indoor movie
with Super Sensitive "Pan" Film. You can do it in a jiffy
The magazine protects the film. You need not waste even a
single frame. Footage meter on each magazine registers fil
consumption, in or out of the camera. Normal speed, hal
speed, slow motion. Four interchangeable telephoto lenses.
A gentle "pulse" button under your finger keeps you poste
on scene length while your eye remains at the finder.

In appearance . . . on performance, this thoughtfully de-
signed camera is predestined to lead. Price, with *f*.1.9 lens,
$125; $137.50 with de luxe case.

EASTMAN KODAK COMP



EIR FIELDS

iné-Kodak, Model K

. . . FOR YEARS THE LEADING 16 MM. CAMERA

THIS *f*.1.9 lens-equipped camera long led the
mm. field in popularity when it was priced at $152.50.
w you can buy it for only $112.50—$125 with de luxe
rrying case for camera and accessories.

Its standard *f*.1.9 lens is interchangeable with five acces-
ry lenses ranging from a 15 mm. wide angle to a 6-inch tele-
oto. It loads with any of five films—Ciné-Kodak Panchro-
atic, Super Sensitive "Pan," Ciné-Kodak Safety Film,
gular Kodachrome, and Kodachrome, Type A—has 50- and
0-foot film capacity. Built-in exposure guide, automatic
otage indicator, two speeds, permanently attached winding
ank, waist-height reflecting finder and full-vision eye-level
der, bayonet type lens mounting, genuine leather and
romium finish—these are among the "K's" many features,
w available at $112.50.

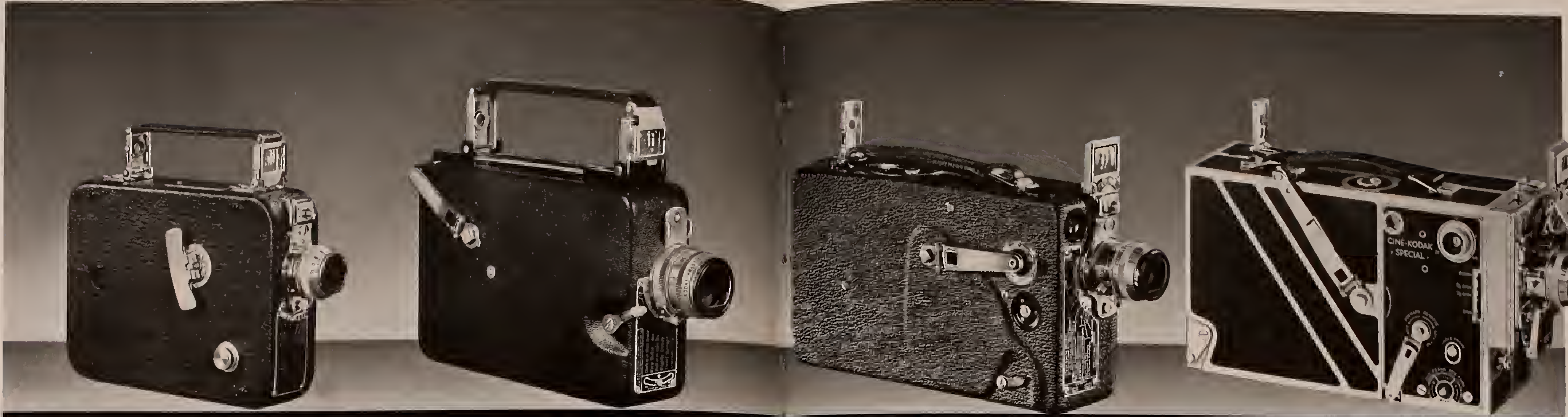
Ciné-Kodak Special

. . . MOST VERSATILE OF ALL AMATEUR CAMERAS

THE Special, as regularly supplied, contains a host of unique refinements. To list but a few: Ground-glass focusing with all focal length lenses, adjustable-opening shutter, reverse take-up, mask slot between lens and film, revolving lens turret, interchangeable 100- and 200-foot chambers, speed control dial offering a choice of taking speeds from 8 to 64 frames per second, single frame release button, one- and eight-frame hand cranks, magazine footage indicators, individual foot meter, single frame counter, long running spring motor.

Still greater scope is added by these accessories: Tripod, tripod truck, masks of any desired design, lens extension tube outfit, electric motor drive, electric release control outfit, reflex finder image magnifier. Price, and descriptive literature, on request.

Y • ROCHESTER, N. Y.



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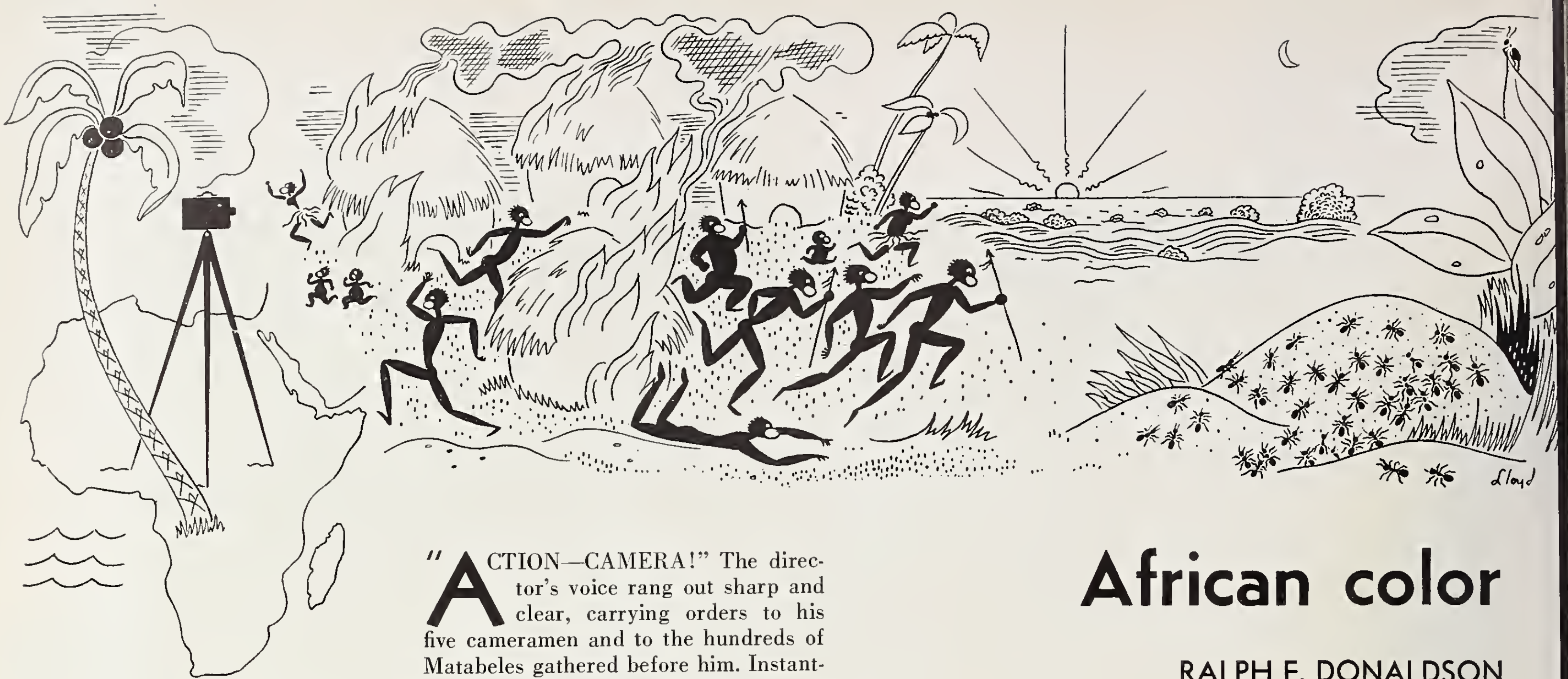

African color

RALPH F. DONALDSON

Kodachrome goes to dark continent with real success

"ACTION—CAMERA!" The director's voice rang out sharp and clear, carrying orders to his five cameramen and to the hundreds of Matabeles gathered before him. Instantly, five cameras started grinding and the scene was begun. The action was a spectacular sequence in filming *Cecil Rhodes* on location in Africa.

On the small camera platform, my sixteen millimeter equipment was eclipsed by a giant 35mm. sound camera. Nevertheless, it seemed proud to be there, for this time it was not photographing with conventional black and white film but with the latest scientific achievement —Kodachrome—a process which was not available to the theatrical producers, with all their equipment.

The warriors danced in anger and shook their assagais at their conquerors but to no avail; defeat was theirs. Now all they could do was to watch the depredations of the victorious. First, the chief's hut was fired. As the grass boma flamed liked so much tinder, a deep sigh arose from the vanquished. Swiftly the flames spread to other huts. Presently the entire kraal was a seething mass of fire. The flames rose higher and higher until, suddenly, it was all over; the flames died down as quickly as they had started. A long column of battle scarred warriors, defeated and dejected, slowly filed out of camera range, followed by their women and children.

It was a thrilling sight to witness, but the very thought of having shot the battle and the fire in natural color was even a greater thrill. The scenes turned out very well and, however impressive that carefully staged drama of flames may have been on black and white, I will wager that my color shots are more so.

I had been extremely fortunate in securing a few rolls of Kodachrome on the eve of my departure for the interior of Africa early in the spring of 1935. In view of the fact that these Kodachrome rolls were the first to be exposed in Africa, I venture to describe some of my color shooting experiences.

In Central Africa, during the winter months, the light is of a strong, unvarying quality. It is possible to arrange scenes in advance because of the reliability of fair weather. The scarcity of huge wool packed cumulous clouds during this period constitutes the only drawback for the movie maker with an eye for composition. The air is clear and surprisingly cool, and the photographer is left free to shoot with a minimum of physical discomfort. In addition, he is free from worries regarding ground haze and heat waves, both of which are of an equally disturbing nature when shooting either with black and white or with color.

There is one condition which must not be overlooked—the absence of dust particles in the atmosphere. This constitutes the greatest menace. Shadows photograph an absolute black, there is not the slightest percentage of gradation. I have shot thousands of feet of film in Africa and, whenever I am forced to shoot a scene with half the action in the shade and half in the sunlight, I always use reflectors. There is no happy medium—no compensation of diaphragm opening.

The primary rules governing exposure and treatment of light, as set forth by the manufacturers of Kodachrome, are a safe guide to satisfactory results. Flat lighting, with plenty of strong rich light on the subject, is unquestionably the best. However, because of the richness of actinic rays, the African sun permits a remarkable deviation from standard procedure. Bearing this in mind, the cinematographer can secure excellent effect shots with cross lighting. It is extremely difficult to set forth a hard and fast rule governing the compensation necessary in exposure. I found, after the usual allowances had been made (latitude, month, time of day, color and nature of object, distance from object, the effect of reflectors used, etc.), that, with side lighting, by increasing the exposure approximately one half a stop, a most satisfactory result could be obtained.

Color photography has eliminated another disturbing element in jungle filming. Heretofore, when there was required a shot in which the clouds were to be important in the composition, the verdant foreground was sacrificed by an overcorrection. On several occasions, I have had to use the densest of filters to register even the lightest of clouds. Of course, the resultant gradation of the foliage was much lighter than normal. With Kodachrome, that condition is eliminated. Nothing is sacrificed. I had occasion to shoot a scene of a huge ant hill. The clouds were very light and fluffy, yet with normal exposure they registered a perfect white; the tan colored ant hill was properly shaded and the surrounding green bush country was in perfect accord. Truly, the new color is a boon to the jungle photographer.

Late one afternoon, when the boys had camp erected and dinner was cooking, I strolled out on the veld with my gun bearer, a tall, well built Zulu, who answered to the name of "Cement." The last streak of color had left the sky and only a few minutes of twilight were left because, near the equator, darkness descends like a huge curtain, and the period of twilight is extremely short. Across the veld, on the far distant horizon, the moon had risen like a huge cheese, ready for its long journey westward. The combination of twilight and moon glow on this jungle setting cast a weird and eerie light. I decided to give the color film its severest test. Mounting the camera on a tripod and opening the lens to *f*/1.9, I attempted to record that majestic sight. The results were beautiful beyond description.

[Continued on page 356]

Closeups —What filmers are doing

Dr. James E. Bliss, ACL, of Cleveland, Ohio, has made an interesting experiment in the use of 16mm. color film with his 100 foot record picture of amateur theatricals staged by the Eldred Players, of Western Reserve University. Using the new Type A Kodachrome, Dr. Bliss has recorded all the delicate color values of setting and costumes for *The Bonds of Interest*, popular comedy by the Spanish dramatist, Jacinto Benavente. Barclay Leatham, Viktor Schrekengost, Marie Bechhold and Gerald Gentile were leading workers from the Players who cooperated with Dr. Bliss.

Fred C. Ells, ACL, producer of the popular Ten Best award winner, *In The Beginning*, dropped in the office the other day, on furlough from Yokohama. We had been looking forward to his visit for months. Mr. Ells, transmuter to movies of the lyric story of Creation, looked pretty much like you or us. Tallish and casually dressed in the traditional light clothes of the Orient, he might have been a good humored squire from the little village in New Hampshire which was his birthplace. It was after you had studied his eyes that you began to see behind them the man who could bring to film the epic beauty of the natural world. One of the highlights of our visit with him was when he gave, casually, his recipe for cinematic success: "(1) Buy a good, steady tripod; (2) take a hammer and knock off the pan and tilt head; (3) rivet the rest of the tripod to the camera; (4) discard sixty to seventy five percent of all film you shoot, using only the stuff that is genuinely good."

Scene caught on a mountain climb by Ray Garner, ACL

The time they were trapped overnight on a slim, cold ledge of rock on the north face of Nez Perce was about the only thrill that Ray Garner, ACL, and his three companions failed to bring back from Grand Teton National Park in 600 feet of fine 8mm. film. The complete membership of the Mountaineers Club—four young, adventurous but extremely able assistant scout masters from Brooklyn, N. Y.—had planned the expedition for years, dreaming over maps, mulling over equipment and perfecting their youthful skill. During four long years, they had practiced, in their spare time, the technique of mountain climbing, taught them by Fritz Wiessner, from Germany, on the rocky cliffs of the Hudson River's Palisades. R. L. M. Underhill, famous climber of the Appalachian Mountain Club, had helped them with countless expert tips through correspondence. At last, in the summer of 1935, they felt ready for the great adventure. An old flivver carried them in less than a week to a base camp in Teton Park. From there, they attacked and conquered eleven peaks in just seven days, climbing one, two and finally three a day. It was during this last valiant splurge of climbing that darkness caught them only half way down Nez Perce. In their film of the expedition, Mr. Garner has wisely prefaced his record sequences with an educational outline of climbing technique.

Riley Hess, ACL, out in Ogden, Utah, has worked out a simple little "gag" for getting fine action shots of his bird dog at point. He discovered the ruse while filming scenes for a picture on pheasant hunting, all in color. It consists, simply, of taking along a live but domesticated bird as a part of your *safari*. The decoy may be even a plain barnyard hen, although Mr. Hess prefers to use a tame pheasant which he is lucky enough to have on call. This he stakes to a likely looking bush, while a friend distracts the dog's attention. Then, with the camera set at a good angle. there is nothing more to do but wait for the poor dog to fall for the trick.

The personal filming followers of the Eighth Art have largely escaped the inflated ego that has so bedevilled amateurs of other arts. However, a very sage counsel is offered by F. H. von Eckardt in the April number of *Film für Alle*, German amateur movie publication, who warns movie makers against too great a sensitivity to a somewhat hypothetical public opinion. "While you are at work on a picture," writes Herr von Eckardt, "don't think about the public or about the opinion of other countries, but do the best you can to create what you have dreamed about creating. A real film will result." This is the epitome of common sense.

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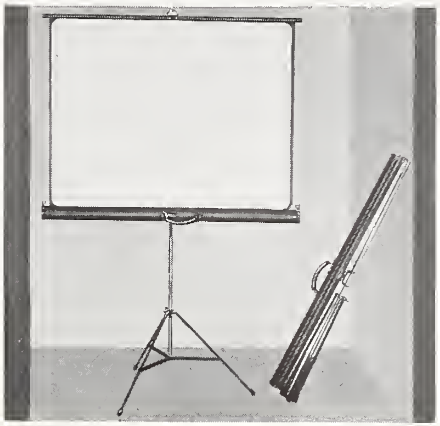

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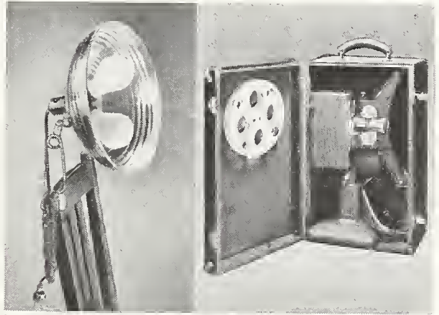

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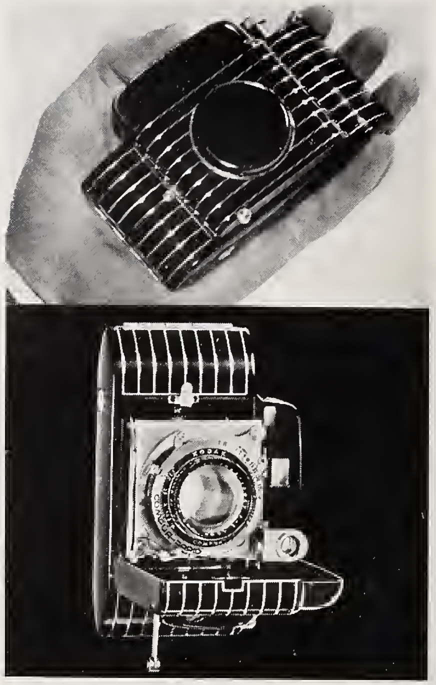
News of the industry

RUSSELL C. HOLSLAG, ACL

Kodak Bantam ■ A new still camera, which will speedily create for itself a high rating in the miniature class, is the Kodak Bantam Special, recently announced by the Eastman Kodak Company, Rochester, N. Y. The appearance of the Kodak Bantam is distinctive, as it is finished in a new type baked enamel, set off by aluminum trim. The case, which is shaped for maximum convenience in handling, measures four and seven eighths by three and one eighth by one and thirteen sixteenths inches. When closed, the lens and other mechanical and optical elements of the camera are completely protected.

Focusing is accomplished by observing a split field image through the special, incorporated range finder, which is automatically coupled with the lens. Accurate focusing is very easy by this method. A brilliant, optical view finder is also provided. Automatic film measuring and centering prevent overlapping exposures, and a specially designed pressure plate keeps the film in exact position at all times.

The appearance of the Bantam also marks the debut of the new Eastman Ektar, which is to be the name of a series of high precision anastigmats. The first of these, here used, is the 45mm. *f*/2 Ektar, which is said to be made according to a newly computed formula which insures superior results in definition, even at the widest stops. The Kodak Bantam loads with eight exposure roll film, either panatomic F828 or Super X X828 which is even faster than supersensitive. The picture size is approximately one and one quarter by one and one half inches.



Eastman Kodak Company

New Kodak Bantam Special is latest miniature camera

Britelite tripod screen ■ To meet the demand for a completely self contained and easily portable screen that can be packed away in a small compass and which will stand by itself on the floor, the Motion Picture Screen and Accessories Company, 526 West 26th Street, New York City, has perfected the Britelite-Truvision Tripod Screen. This screen incorporates the same improved projecting surface that was developed for the De Luxe Type A cabinet screens already featured by this company. The new tripod screen assembly incorporates solid steel legs, improved and simplified operation, rigidity when extended and ease in erection. The metal parts are finished in black crackle, and the screen may be raised seven and one half feet from the floor. Three popular sizes are available. Further details will be gladly supplied by the company.

Lab service ■ The installation of improved processing facilities for laboratory developing, printing and reversal of 8mm. and 16mm. film recently has been announced by the Superior Safety Film Company, 96 Academy Street, Newark, N. J. The laboratory does not supply film, but will process the customer's exposed film, as desired. Editing and titling work are also available on order. Price list will be sent on application to the firm.

Record reception ■ Sixteen millimeter sound film was used to preserve both visual and audible evidence of the dinner and reception which was tendered to Dr. Hugo Eckener and Captain Ernst A. Lehmann on the evening of May 10, 1936. This date marked the completion of the first of a series of regular passenger flights of the Zeppelin *Hindenburg* between Europe and the United States. Other notables present were Dr. Hans Luther, German Ambassador; Commander Rosendahl, of the Naval Airport at Lakehurst; Amelia Earhart; and Grover Whalen. Speeches made by Dr. Eckener, Captain Lehmann and others were recorded in 16mm. sound film by Eric M. Berndt and Robert Sturgeon, using the Berndt-Maurer single system camera. The reception was given under the auspices of the Board of Trade for German American Commerce, at the Waldorf-Astoria Hotel in New York City.

Frame enlargement of 16mm. talkie of Eckener's reception

Berndt-Maurer

Beacon movies ■ The talents of Sophie Smith, formerly manager and publicity director of the Little Picture House in New York City, are now employed in behalf of the Beacon House, Easton, Conn. Within easy motoring distance of New York City, Beacon House is noted for its unsurpassed view. Here, movie makers may satisfy their desire for unusual color shots as well as for good food and, on special evenings, out of door 16mm. movie programs will be provided under Miss Smith's direction.

Political history ■ Those who are interested in the events taking place at the recent convention of the Republican Party and who

Continued on page 360]

Practical films

The non theatrical movie as used for various purposes

■ The Elliott Addressing Machine Company, in Cambridge, Mass., is now using a one reel 16mm. picture in sales and promotion work. The picture, which demonstrates the Elliott addressing and printing machines, is shown in the company's offices, thirty two of which have been equipped with projectors. Portable projectors also are used by salesmen.

■ Slow motion picture studies are facilitating the operation of the new high speed trains, reports the Bell & Howell Company in Chicago. A camera manufactured by that company was used by the Chicago, North Shore & Milwaukee Railroad to detect the cause of "nosing," an oscillation of the wheels which occurred when the cars were going faster than sixty miles an hour. The camera attached to the car truck, and focused on a wheel, was started by remote control when the train passed a speed of sixty miles an hour. A comparison of a series of films made this way revealed that the "nosing" was caused not by worn wheels but by the taper of the wheel which had been standard in railroad design. New wheels, designed as the result of these tests, did not "nose", and therefore passengers in the newest and fastest trains will ride in greater comfort. The substandard movie camera has made another contribution to efficiency in modern engineering.

■ At the convention of the American Academy of Orthopedic Surgeons, held in St. Louis in January of this year, Henry H. Kessler, M.D., was awarded a gold medal for his exhibit on the Cineplastic Arm. The outstanding feature of his exhibit concerning this phase of surgical technique was a 16mm. color motion picture photographed for him by Henry M. Lester, ACL.

■ Much of the success, last year, of the Elgin, Illinois, Community Chest campaign was credited to the publicity film made by G. William Lang, ACL, and his associates. This year, Mr. Lang is making it over in color. The film covers the widely varied aspects of the Community Chest idea, concentrating on facts but ending with a strong sweep of emotional appeal well calculated to frame the state of mind of an audience to understanding and sympathy.

■ At the Washington Square branch of New York University, in Manhattan, plans are now nearing completion for the presentation of a course in the fundamentals of motion picture production. Sponsored by the Division of General Education, the course will be given in a series of fifteen weekly lectures during the fall term by Charles J. Carbonaro, ACL, a Movie Makers Ten Best winner of 1935 and late of the cinematographic staff of the Religious Motion Picture Foundation, in New York City. The instruction will cover the subject both from the technical and continuity points of view, illustrating theory and practice with the use in the classroom of substandard films and equipment.

Bell & Howell

Ed Wier, coach at University of Nebraska, filming football

■ To tell the sales force of Charis Corporation of the product that this concern is distributing is the purpose of the film now in production under the direction of Ralph E. James, ACL, vice-president of the company in Allentown, Pa. Dealing with the actual procedure in the manufacture of corsets, as well as acquainting the canvassers with the personnel at the offices, the film makes for greater esprit de corps in the sales ranks by pounding home the fact that the Charis Corporation is a firm basis on which to build their lives and fortunes.

■ The National Conference on Visual Education held in Chicago during June, 1936, featured continuous film exhibitions of selected industrial and educational pictures which exemplified the best current practice. After each picture was projected, advertising men and the teachers discussed its technique from their respective viewpoints, a scientific procedure which should produce results of great practical importance in planning commercial films that are to be made available for schools. It is by such obvious and practical steps as this that real progress will be achieved in making the film product of commercial concerns more valuable in education, without hampering its prestige value to the sponsors. Included in the program of the conference were brief talks by leading exponents of visual education, who discussed the progress that has been made during the past year.

■ The possibilities and problems of the religious use of substandard motion pictures were discussed and demonstrated recently by staff members of the Religious Motion Picture Foundation, as a scheduled lecture in a course on the motion picture at New York University's School of Education, conducted under the auspices of Professor Frederic M. Thrasher, ACL. Mary Beattie Brady, ACL, director of the Foundation, opened the program with a brief outline of the history of the R. M. P. F. She was followed by William L. Rogers, speaking on the aims and problems of the organization in the field of socially useful movies, and Kenneth F. Space, ACL, cameraman for the Foundation, speaking on the possibilities of group film production with economy. Daniel E. Lindsay, technician, discussed available substandard equipment and its uses. *Lost and Found*, a three reel, 16mm. photoplay recently completed by the R. M. P. F., in cooperation with Church Young People's Group, of Port Washington, L. I., was then screened in specific illustration of many of the points made by the speakers. The program was rounded out by a thorough exhibition of modern substandard equipment, made available largely by the Foundation but gathered with the cooperation of the Ampro Corporation and the Victor Animatograph Corporation.

■ Samuel A. Freed, ACL, of Wilmington, Del., who has made a vocation of his former hobby, will film the Marine Terminal of the port of Wilmington in two reels of color. The Board of Harbor Commission will use the picture as an educational medium for showings at public schools and civic society meetings. The purpose is to point out the growth of Wilmington as a receiving station for products from all over the world, as a distributing center for this continent and as a trans shipping port for many nations, while withal serving the local market. Previously, Mr. Freed had done, for Stevens School in Germantown, Pa., a publicity film called *A Year at Stevens.*

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Miniature sets

[Continued from page 342]

scenes, lasting only a fraction of a minute on the screen, such as auto collisions and airplane crackups, often several thousands of dollars are spent in the construction and filming.

To get suitable shots from the desired angles and positions, several cameras are used on scenes where the miniature is to be destroyed, and then the film editor, in assembling the sequence, uses the various angles in building up and dramatizing the incident through the technique known as "short cuts" and parallel action. In other words, the film editor will cut the film so that, first, an early stage of the destruction sequence will be shown in a quick flash, to be followed by a cut showing real life actors in a closeup apparently in the midst of the scene. This closeup will be followed by another shot of the miniature. By playing back and forth, the illusion that the actors are actually in the scene is obtained and the tenseness of the story is developed.

If an airplane is to be shown in a crackup, the miniature plane is usually dropped ten or fifteen feet to the ground of the small sized setting on which the cameras are focused. By running the cameras about eight times normal speed, the fall of the plane is slowed so that it appears to glide to the ground, while any jerking or twisting of the wings in the fall would seem to be maneuvering or the result of air pockets.

To add to the illusion of a forceful impact, fullers' earth and perhaps a detonating cap is inserted in the body of the airplane, which explodes to break up the plane.

To add punch and to convince the audience that the stars or real life actors are in the plane, closeup shots are inserted in the sequence by intercutting. Closeups of the actors in planes in the air are obtained by what is known as rear projection. A plane of the type used in the miniature is set on a platform or is suspended by invisible wires from the ceiling of the sound stage. Behind it is a projection screen upon which is projected a movie of the desired clouds or skyline. A camera photographs, from a desirable closeup angle, the actors in the plane and records the movie on the screen in the background. The actual effect of travel is gained by the action of the movie on the screen. The action of the film on the background screen gives the illusion of air travel, even though the plane is standing motionless. To enhance the feeling of movement, the plane is rocked and tipped by technicians who manipulate the wires or jiggle the platform.

A miniature set in "Dancing Pirates" as seen in the film

In train or auto miniatures, the camera is turned with less speed, but still at about six times normal, so that the comparatively light construction of the miniature will photograph with sufficient weight and will not bounce along. In train miniatures, the cars usually are motivated by small electric motors, inside the body, which are geared down to the proper speed, while the puffing effect of the engine is made by a chemical smoke in a bellows operated by an eccentric roller on the wheels.

To get a proper crash and splintering effect, the cars are constructed of very thin balsa wood and the undercarriage is made of metal. In the miniature crash, as the cars are wrecked, this wood breaks up in the manner of a heavier construction. The cars are usually weighted so as to provide a more forceful impact.

The crumbling and collapsing wall of a miniature building made of plaster of Paris is photographed at about four times normal, which results in a shot in which the walls slowly start to sway, totter and then crash. Such buildings are broken in advance along desired lines and then are put together in sections. When an earthquake effect is desired, the "break away" is accomplished by an electric motor operating an eccentric cam that jiggles the platform on which such miniatures are built. At other times, the buildings are made to collapse by pulling out key pins which are connected by wires that run down through the building and out of camera lines to an operator who pulls the wires according to signals from the director.

In animating miniatures, as when animals or human beings are made to move, stop motion is used. The best recent examples of this were in the film, *King Kong*, the technical work of which was done by Willis O'Brien. In this picture, an eighteen inch figure was made to appear thirty feet tall and to move about in scenes in which real life actors, apparently no larger than his thumb, were introduced. The figure of King Kong was made of sponge rubber and rabbit's fur over a jointed steel skeleton. The joints were ball and socket designed so that they had the needed rigidity. To animate the figure, the parts of the body were moved a fraction of an inch between shooting each frame. The greater the movement between each frame exposed, the faster the action in the finished scene, one sixteenth inch being used for normal action.

While this sounds simple, many factors enter into making such a shot. About twenty five or thirty feet of film, which is viewed on the screen in a little less than a quarter minute, is a busy day's work. When the feet were being moved in a walking stride, first one foot was filmed for several frames and then the other. Between the movement of each foot, the other foot was anchored to prevent body movement.

While Willis O'Brien uses this type of figure, other workers use rubber over a heavy wire skeleton and still others carve jointed wooden figures. The latter constructions, however, do not stand up under the day after day wear and tear of stop motion animation.

Certain birds or airplane maneuvers are obtained by "wire work," in which the miniatures are suspended by continuous loops of fine wire. The miniature birds or planes are moved frame by frame in stop motion.

When real life actors are introduced into miniature scenes, rear projection is used. A small projection screen is secreted at the proper place in the setting and on this screen is thrown, by a projector behind the set out of camera lines, the desired movie of the actors. The picture is projected by stop motion so that the animator may look at the picture on the screen and then move the miniature to correspond. In this way, the action of the miniature is built up pose after pose to fit the action of each frame on the screen.

The film of the real life actors, of course, previously was photographed in keeping with the particular needs, as was shown in the sketch from which the entire setup was visualized.

He and she, not it

[Continued from page 337]

ascetics, an inventor among standpatters, an imaginative person in a conventional milieu, a conceited man among simple souls, a miser among gamblers or a gambler among misers. Or, even more simply, the conflict may be based on two individuals who mutually attract one another one way and repel one another in other ways. The whole catalog of sins and virtues is a plot book in miniature: pride, greed, envy, double dealing or faith, charity, justice, temperance. These may be combined with mankind's many purposes, often in conflict within the same individual. As a short cut, any page of a modern text on psychoanalysis will supply at least one good plot, by substituting persons for ideas.

Disguised as it may be, any plot will bear stating in three words: open mind vs. prejudice; responsibility vs. wanderlust; esthetics vs. profit. A conflict of *wills*, or the conflict of a will with itself (the disagreement between conscious and unconscious), is drama. Conflict with an outworn social convention is comedy. Conflict with an imaginary obstacle is farce. Of course, the more magnitude the characters have, the better the plot. Given a good theoretical start, the next step, that of turning the idea into persons, is not so difficult as it might seem. A trick available to all is to follow the pattern of one of Æsop's Fables, substituting persons for animals and making full use of modern conditions. Be it observed in passing that oversimple locations make it almost impossible to create original plots. When human beings are reduced to the elemental level, it takes stark tragedy to make them interesting—and that has all been done before. The many instrumentalities of civilized life are a great assistance to the scenario writer, as anybody must realize who compares the otherwise identical performances of Nelson Eddy and Jeanette MacDonald in *Naughty Marietta* and in *Rose Marie*.

That the characters of a play or a story are more or less copied from real life is self evident, although this is habitually denied, not only as a legal protection against libel suits, but because no personality can ever be taken *in toto* from life without certain additions and syncopations which amount almost to the creation of a new character. Just as the biographer is obliged to gloss over a mass of routine happenings, such as eating breakfast and changing one's wet clothes, the fictionist must emphasize those aspects of character that will create the necessary conflict. Personality cannot be created out of whole cloth; living models must be followed to a certain extent. Yet, after undergoing the necessary modifications required to give them dramatic value, the characters will cease to be copies and will become originals. Anybody who cannot find story characters among the persons of his immediate acquaintance will never find them elsewhere. (The only proof of originality that can be given is to produce the complete series of changes through which a creation has passed. A straight "inspiration" is generally a straight reminiscence.)

Plagiarism, in other words, is the unskilled copying of persons, words, incidents. Yet it is perfectly legitimate to take living personalities, or the work of other writers, as a starting point for one's meditations, to be twisted until the originals are no longer recognizable.

It is in that twisting, however, that the perils of dramatic writing lie. It is never easy to change a personality in such a way as to create a *consistent* characterization, which is why there are so few really great novels or photoplays. A printed short story can get away with an oversimplification of character, because the story depends mostly on incidents and covers only a brief period of time. But a novel or a photoplay,

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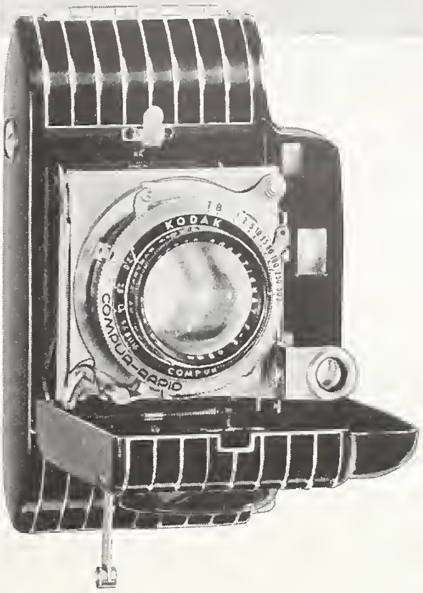

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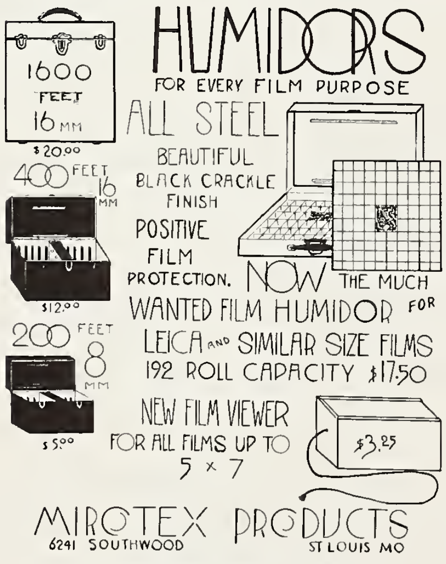
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slowly trailing a person's entire life, has to remain convincing throughout. Back of every character in a good play, the spectator should be vaguely conscious of a large submerged foundation, the unknown or untold background, of which we are aware in every case of a contact with a living person. The true dramatic character has a past; the puppet of melodrama or cheap fiction is just a paper cutout.

Let it not be thought, because a certain method is here suggested as a starting point in plot invention, that every scenario writer or novelist proceeds in a standard manner—far from it. One writer, who has a vivid sense of dramatic tempo, will visualize first the grand climax of a mystery plot—the slow opening of a door, the agonized yell, the sudden darkness. From that he will work backward, to the circumstances that make such a scene possible, and still more backward to the types of people he needs to animate the scene. That is, on the whole, the melodramatic method and the easiest, although very few amateurs realize that it pays to begin at the end. Another writer will make a mental list of the rungs in ascending to the climactic showdown and then connect them into one story, with persons and circumstances to suit his purpose. Another yet, the rarest type, will start at the beginning with pure and irreconcilable characters, and "let them rip." The difficulty of the last plan is that it tends to flatten out at frequent intervals and necessitates a good deal of back tracking to find out what, in a previous scene, led to an undramatic leveling of emotion.

The hack scenarist, on the other hand, will blandly appropriate a situation from any successful story, change the sex of the principal characters, modernize or vary the locale and mix in some successful incidents from another plot, taking great care to avoid any closely knit sequence that would be recognized. The result will be the commercial and unconvincing "program" picture, which will owe its consistency chiefly to the happy circumstance that it has to be enacted by living actors, who give it the appearance of holding together.

For those to whom all these methods still seem too theoretical, there remains the alternative of taking an incident from the day's paper and turning it into a story by supplying the motivation, the conflict and the environment. For example, the paper reports that "An unknown man committed suicide yesterday by jumping from the Colorado Street bridge." After a few moments' reflection, the story begins to take shape. What kind of a man was he? (Characterization by dominant traits: excessive humility, despondency, inferiority complex or, perhaps, excessive pride.) What had driven him to this decision? (Conflict between two sides of his nature or with a dominant personality.) Just as the climax is ready, what can change his *mental* attitude to himself? (Dénouement with a surprise element.) In no time at all, the plot is ready in its main outline: Here is a man, born of poor parents and one of a large family, who has always been told he would not amount to anything. His wife has turned against him. His hopes of a family of his own are frustrated. He has lost his health, his job, his grip. He decides to end his life. But, just as he is ready to jump, he sees a child on the steep bank in danger of falling into the rocky canyon. He forgets himself, runs to save the child and realizes (mental change, solving the conflict) that he is not so useless after all. He decides to give himself a second chance.

Taking the best from each of the methods just outlined, one can lay down the three steps that will most readily yield a possible plot: (1) Work backward, from a climax supplied by a real life incident, to a personality with character traits capable of creating the desired conflict. (2) Place that personality in an environment where the conflict is certain to come to a head. (3) Let one of the character traits provide the solution, when released by an incident which is in itself sufficiently commonplace not to appear "planted."

(Editor's note: Next month we shall print a sequel to this article, which will cover how to prepare the continuity.)

The clinic

[Continued from page 340]

order to tell whether such fuzz is in the camera gate or in the projector gate, when the picture is being run, throw the scene out of frame by turning the framing knob. If the dirt moves with the frame line, it is in the camera and has been photographed on the film. If it moves with the gate, it must be removed from the projector aperture. In any case, it can ruin an otherwise fine picture.

Salty projection ■ While casting about for a suitable screen material, I chanced to experiment with ordinary table salt and found it amazingly good. I prepared a section of plywood with a black molding and a two inch black border in conventional style. Although I placed wooden legs on my screen to make it self supporting, others may want to hang it on the wall with screw eyes and hooks. I gave the actual screen surface two coats of flat white paint, following when dry with a single coat of glossy white enamel. While this was still sticky, I sprinkled it with ordinary table salt of the non iodized variety. The result was a fine screen that, to my mind, cannot be equalled for color projection.—*C. B.*

Keller. (*Editor's note:* We don't know in what condition this screen might be after some very damp weather, but there is not much at stake either way.)

On the level ■ Nothing is more annoying to the particular movie maker than to see horizons tilted and vertical lines slanting. Very often, this is due to the fact that the tripod is not set so that the head is perfectly level. If one plans to shoot a second scene from the same tripod position, but to swing the camera between shots to get a new viewpoint, it is necessary that the tripod head be absolutely level. There is only one way to be certain of this and that is to have a small level placed on the head. The "T" type level seems best and it is easy to fasten in place, either with solder or machine screws. This will be a useful aid in all types of vacation filming where much work is done on uneven ground.

Projector sound ■ The noise of a projector often is loud enough to interfere with a musical or narration accompaniment when the program is presented in a fairly small room. This can be overcome by building a "blimp" or folding cover for the machine. A hood that is open at the back and bottom can be made of pieces of sound absorbing wallboard. It can be lifted aside quickly when the threading or focusing operations are being carried on. A hole, covered with a clean piece of glass fastened on the inside with thumbtacks, permits the picture to be shown through the front of the "blimp." Care must be taken to make the top high enough to prevent its impeding the circulation of air from the lamp, which would cause overheating. A lining of sheet asbestos would help keep the top cool. Such a covering will not only silence the noise of projector operation but it also will prevent stray light from annoying the audience.

Gray lips ■ Panchromatic films, being highly red sensitive, will cause reds to appear light in the finished picture. Often the lips will appear almost as light as the rest of the face. This quality is decidedly advantageous when filming a person with freckles or light red blemishes. Orthochromatic film, on the other hand, will accentuate reds because it is not sensitive to red. For the best portrait results, very light lip rouge should be used with orthochromatic film, while dark red, and preferably a red with a bit of blue in it, will give best results with panchromatic film.

Reflex whirligig ■ Here is a way to make a revolving shot that cannot fail to mystify even the most experienced movie maker in your audience. The effect is that the entire picture whirls round and round on the screen in a dizzy fashion, yet all objects in the picture are in normal motion.

If desired, the whirling effect may become slower and slower, finally tapering off in a series of seasick oscillations. No complicated gadgets are required to create this effect, although it appears as if the camera had been revolved in a circular frame. Simply make a sling for the camera out of thin, strong string and suspend the camera by this one string

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100'					19'	14' 2"	12' 8"	9' 5"	8' 5"	6' 3"	6' 4"	4' 9"
75'											4' 9"	3' 6"
60'											3' 9"	2' 10"
50'	31'	23' 2"	18' 11"	14' 2"	9' 6"	7' 1"	6' 4"	4' 9"	4' 2"	3' 1"	3' 9"	2' 4"
25'	15' 6"	11' 7"	9' 5"	7' 1"	4' 9"	3' 6"	3' 2"	2' 4"	2' 1"	1' 8"		
15'	9' 3"	6' 11"	5' 8"	4' 3"	2' 10"	2' 1"	1' 10"	1' 5"	1' 3"	11"		
12'	7' 5"	5' 6"			2' 3"	1 8"	1' 6"	1' 1"	1'	9"		
12'	6' 2"	4' 7"	3' 9"	2' 10"	1' 10"	1' 5"	1' 3"	11"	9¾"	7¼"		
8'	5'	3' 8"	3'	2' 3"	1' 6"	1' 1"	1'	9"	7¾"	5¼"		
6'	3' 8"	2' 9"	2' 3"	1' 8"	1' 1"	10"	8¾"	6½"				
5'	3' 1"	2' 3"			11"	8¼"						
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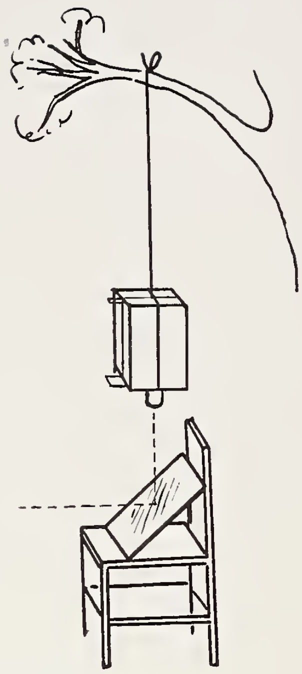


Here is a simple arrangement for making a mystifying shot

so that the lens points vertically downward. The best effect is gained if care is taken to have the string suspension coincide as nearly as possible to an imaginary line passing through the lens axis. Directly below the lens, and at an angle of forty five degrees, prop up a medium sized mirror. Thus, by looking through the finder when the camera is suspended, one may see reflected in the mirror the scene at right angles to the camera. Naturally, this is the scene which the lens will record. To get the effect, simply twist the string a number of times by turning the camera. When you let go, the camera will revolve in the opposite direction, while the appropriate action goes on as reflected in the mirror.

Fast, normal or slow motion may be used, and the effect is very amusing as a means of showing the state of mind of an individual who, to carry out the demands of the story, is supposed to be extremely confused, inebriated or seasick. Make sure that the string used is very strong twine and that the sling is well rigged. The most convenient form of camera for this is the box type, although the envelope type also can be used.—*R. C. Holslag, ACL.*

Instructions ■ It is often apparent from letters sent in by League members that the manufacturer's instruction book is ignored. The new movie makers should take pains to study the books which accompany cameras, projectors and other accessories. Frequently, basic errors in picture making and projection can be traced to carelessness on the part of the user in familiarizing himself with his equipment. If you haven't read your instruction books carefully and compared the diagrams with the camera itself, do it today!

Vacation accessories

[Continued from page 336]

effects in travel films are at definite transitions in time or place between film sequences. We are carrying a fading glass, an iris vignetter and a matte box, but these could be left at home. Fades now can be put in films by the use of dyes after processing, and the cameraman without special equipment can also get smooth transitions by careful planning. Clouds are but one of many natural means of indicating change of location or lapse of time.

Two items not previously mentioned are absolutely essential—an ample supply of film and an exposure meter. The better acquainted the movie maker is with the particular film and exposure meter he is using, the more certain he will be of good results.

Oh, yes—and last but not least, we have tucked away in our trailer about a dozen copies of MOVIE MAKERS from the summer months of the last three or four years. Reading them over in spare moments often supplies an inspiration that can be incorporated in the filming jobs on hand.

African color

[Continued from page 348]

Picture the veld, its skyline broken with Kumba trees and high impenetrable thorn bushes—dark and foreboding—and over this the yellow moon, emulating the beauty which had just departed with the sunset. If you can visualize that picture, then perhaps you can sense my feeling when I projected that scene back in civilization—I lived that moment over again and, in retrospect, enjoyed memories so familiar to a jungle wayfarer.

In the Zulu country, I had the good fortune to photograph a group of natives in war regalia. Their razor sharp assagais glistened in the sunlight as they danced a dance of age old Africa. In a large clearing, some twenty of them lined up with instruments of war, many of them ancestral weapons. They worked themselves into a frenzy and then, with reckless abandonment, discarded the traits of civilization and lived once again, for a few fleeting moments, in a land devoid of white settlers. This scene in color registered the true African spirit of the dance.

My expeditionary work carries me to the far corners of the globe, and now I look forward with breathless anticipation to scenes which may be photographed with color film—the beauties of the Taj Mahal, the colorful Wats of Bangkok, the earthly paradise, Bali.

These and many others of equal beauty will be brought to my home for friends and armchair explorers to enjoy.

Tact and a telephoto

[Continued from page 339]

with a glint of straw in it is applied to the mud bricks. Then shift to the one inch lens and take the woman leisurely descending the ladder for another bucket of mud. You and your audience will then appreciate why even new adobe houses have softly modeled walls utterly unlike any stucco or plaster finish put on with a steel trowel at so much an hour.

Thank your subject, shake hands with her, promise her a frame enlargement and *send it to her.* By keeping your promises, you will add much to the prestige of the white race.

You may find the same sequence in a Spanish American hill town. Only, instead of gayly colored calicos, your subjects will wear long black skirts pinned back, showing gingham petticoats, and they will have black handkerchiefs on their hair. The approach is the same, with the exception of the need of seeing the governor. Ask permission to take the work and proceed as unobtrusively as possible.

But, in any of these shots, beware of overexposure. In the middle of the day, the reflection from the bare pounded earth foregrounds can be terrific, as you will probably discover for yourself if you fail to wear smoked glasses. Adobe walls are perfect backgrounds for anything, but, while softly brilliant in the shade, they are glaring in the sun. At midday, with no clouds, a 2x filter can be used with normal exposure.

The time of year of your visit will determine many of your subjects and sequences. In the spring and summer, you may find dances or ceremonies going on, parts of which may be filmed after first conforming with the formalities already described. The action, the varying rhythm of the drum and dance steps, the intricacy of the foot work, as well as the details of costume, all call for your utmost capabilities. Use slow motion and your telephoto lens on scenes of the dancers' feet. When the forward motion stops, and each individual stands swaying in place, tilt slowly from feet to head. Cut frequently to the drummers to accentuate the rhythm and use the telephoto lens for a shot of the drummer's hand holding the stick and rhythmically tapping the drum head.

Some of the old drums are very beautiful in form. Buy a small new one. When you show the picture, it will add at least fifty percent to the effect if you use it. Rehearsing the drum with the picture should enable anybody to approximate the original beat.

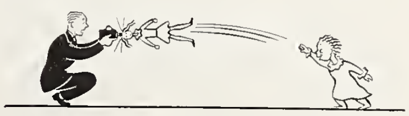
In the spring, you may find a Pueblo woman winnowing her seed wheat. Standing on a large piece of canvas beside a pile of yellow wheat, she will fill a round shallow basket with grain. Then, lifting it above her head and turning so that the wind blows across it, she will pour the wheat on the ground, tilting and moving the basket so that the wheat descends in a waving, swaying stream. The wind carries away the chaff and impurities, and so the seed is made ready for planting. Or you may find some of the women, with the same baskets full of grain, knee deep in a stream, letting the water flow through and over the basket tops. The chaff and bits of straw float away downstream and leave the clean, moist wheat.

If you come in the fall, you may find the pueblo plazas four feet deep in corn and a dozen or so women husking busily and expertly. The husked ears are piled on the roofs to dry. You may find a coral, built of upright posts like a stockade, behind the houses, and a group of men and boys driving horses or goats around and around. One man, on top of the stack in the center, throws down a constant supply of bundles of wheat or oats to be threshed out as the animals tread on it. These are customs which are described in the Old Testament but which still persist and are commonly practiced.

There is too little space to describe the ceramic arts, as carried on in the pueblos today. The product is fashioned entirely by hand and the clay form is fired in a simple outdoor fire, built usually near the back doors of the pueblo houses. If you happen to discover a potter thus engaged or busy modeling pots of wet clay or decorating pottery already fired, you again have a sequence made for you. Use a telephoto, and the approach is the same—the results are dependent on your camera skill.

All the practices of the household arts are interesting and good subjects. In every plaza are structures that look like large clay beehives. They are ovens. Fires are built inside them and, when the proper temperature is reached, the ashes are raked out and loaf after loaf of unbaked bread is put in on the end of a long wooden paddle. The women come from their houses with trays of the shaped dough on their heads; they are graceful and lovely and a subject in themselves if you "pan" properly and keep the moving figure in the center of the screen.

But never forget that your opportunity to film depends on your courtesy and good manners. If you conduct yourself otherwise, a plaza may suddenly empty itself, and there will be nothing to take except the sun shining on closed doors and curtained windows. Not much action in that!



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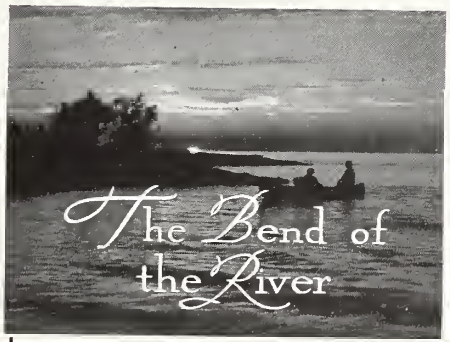

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League film reviews

MEMBERS of the Amateur Cinema League, no matter in what country they may reside, are always invited to send in their films for review and criticism by the League's technical and continuity consultants. However, because of certain factors stated immediately below, the League must ask that the following conditions obtain if films are sent to us from countries other than the United States, for review or for any other reason:

(1) The films must be exposed on stock that has originally been manufactured in the United States. This is necessary because it is a condition of free customs entry set up in the United States Tariff Act of 1930, currently in force. Because of the expense, the League is not justified in paying customs charges on films which cannot be granted free entry.

(2) The shipment of films must be made via parcel post, in other words, through the mails. Because of the complicated and unreasonable time wasting clerical operations required when shipments are made by express services, and because of the disproportionately heavy clearance fee in comparison with that required by parcel post delivery, the League cannot undertake to receive any shipments of film made by railway express service from countries outside the United States.

Cine climbing

[Continued from page 345]

neither the opportunity nor inclination to endanger the party by bringing his camera into action.

Planning is very necessary for a film of mountain climbing. A variety of human interest, scenic and climbing shots for each section of the climb must be made, because little latitude is permitted in editing. The character of the scene, the effect of the height and the type of rock change such a great deal that taking too much liberty in intersplicing different parts of the film will result in an effect that is obviously incorrect and disturbing.

One shot that must be obtained is the arrival at the summit. Usually it is easier to reenact this scene after the party has rested. Set the camera level and film the party as they climb over the crest, jubilant with success. Follow with shots of the scenery from the summit, using heavy filters. Such filters as the Wratten "G", "A" or "F" are necessary to penetrate the mountain haze which obscures valley detail. Include members of the party in some of the scenes. It is not desirable to film signing the register at the peak if there is one, as this merely attests the fact that the peak is climbed altogether too regularly.

Showing the descent is entirely unnecessary. This is merely an anticlimax, and your audience will have no difficulty in grasping the fact that you did not spend the rest of your life on top. End with a striking shot of clouds or a sunset (not necessarily taken from the top) and fade or iris out.

A light camera is preferable to a heavy one because it requires a great deal less energy and decision to bring a small light camera into use in awkward places and in high altitudes than it would a heavier model. As you always will be limited in the distance at which you can stand from the party, a wide angle lens is the most useful. This same lens also helps in filming mountain views, which invariably are far too wide for the narrow angle of the standard movie lens and which otherwise could be covered only by a panorama (Lord preserve us!). Keep the camera in the regular case. The extra pound or two will be more than made up by the ease with which the camera can be removed for immediate use as well as the added protection afforded. A telephoto lens is useful in filming wild life or in obtaining closeups of the climbers. If possible, carry a light tripod. If it cannot be set up with the legs apart, it can be used as a unipod, with the legs together. In either case, the steadiness of the scene will be much improved and will be appreciated long after the extra effort has been forgotten. Mountains are a symbol of steadiness—don't let them wobble on your screen. Filters are essential to cut the haze in long shots, to increase the brilliance of distance and to emphasize clouds. Under strange conditions, such as will be encountered, variations in light will be so great that an exposure meter is absolutely essential. Be sure to consult it frequently because, with every change in location, the lighting is different. The depth of shadows at high altitudes is always surprising.

Cooperation from the members of the party is of the utmost importance in making a successful picture. A small whistle is helpful in giving directions to the climbers and in telling them when to start and stop action. Wind or distance often precludes conversation.

So, off to the mountains—and good luck and good filming!

Saturday quickies

[Continued from page 344]

time bearing the cake. When it was joined up, it carried a definite story with a real touch of sentiment.

They had the photographic picnic the following week, but Jim planned no more elaborate trips for the remainder of the season. The rest of the Saturdays were given over to the backyard movies, when the weather permitted, and indoor work when the skies were overcast.

For example, one afternoon, he and Sally dressed Junior in a clean but old suit. Jim made a mud hole in the backyard, with the aid of a shovel and a hose. Sally sat in a garden chair reading a book, but keeping an eye on Junior. She pretended to fall asleep, and Junior, needing no verbal directions, gravitated to the mud hole. Jim borrowed the white poodle from next door and dropped him on the turf. In a minute, he and Junior were having a delightful time together, and presently the little girl from next door, a three year old, was added to the company. Then the second child's mother (also from next door) came in search of her lambkin, exclaimed at the spoiled frock and turned on the apparently still sleeping Sally, wakened and upbraided her. Each mother clutched at her child. While they argued, the poodle (newly dipped into the mud) violently shook himself and, for the climax, got both mothers as muddied as their children.

Another popular picture was that of a bridge game in the yard, which ended in a dispute and a general hair pulling. By prearrangement, all the women wore old dresses which could be torn, and they went into the fight finale with an enthusiasm that was worthy of a professional comedy. It started off nicely enough, with an air of elegance, but was jolted when a neighboring cat was chased on the table by the poodle actor of the mud puddle epic. The cat jumped on the table, with the dog after her, upsetting the game. After that, nerves developed until, in an argument over a deal, the real fight began. That picture was such a hit that Jim now has a stock company that runs around the four sides of his block. All the houses have backyards and the neighbors all come out when Jim appears with his camera.

One of his most amusing comedies was produced at a cost of $1.20 plus the film. This was for a dozen jardinières from the ten cent store. All were set along the back fence, with flowers stuck into the sand with which they were filled. Sally and a couple of the neighbors appeared with a rifle and a target, which was pinned to the fence below the jardinières.

Each shot, aimed at the target, popped off a jardinière until there was but one left. As the women argued about the wildness of their shooting, Junior picked up a rock and smashed the remaining jar for a smart finish.

The effect was made possible by breaking the jardinières in advance and by then pasting them together, with one of the broken sections taped to a string in the rear. At signals from the director, a boy behind the fence pulled the strings, causing the jardinière to collapse and the sand to pour out. The women shot blanks.

None of the plots was very elaborate, partly because Jim could not handle many complications. Perhaps it was because of this fact that the stories were so popular. They were all down to earth. They were easily grasped and the comedy was obvious, but Jim did write reasonably plausible adventures, and his pictures are more in demand for neighborhood parties than the ambitious, but often too ambitious, four reel efforts of some of his fellow craftsmen. He writes to please himself, and since he has the average mental slant, he therefore writes to please his friends.

He is living up to his slogan: "Why go far afield when you can have so much fun in your own backyard?"

Tips from movie travelers

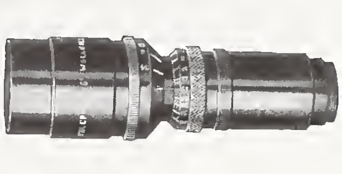
[Continued from page 338]

or old forts." We have been fortunate enough to see a number of Dr. Shearman's unorthodox reels of this kind and heartily second his plea for this footage. Of course, you will know enough not to "pan" on such static stuff, but will prefer rather to sequence each ruin in carefully composed views which bring out most effectively its desolate beauty.

Once up in London, a sure fire subject, in color or monochrome, will be the famed changing of the Guards. Here, Clara L. Brock, ACL, has practical advice to offer which carries the undeniable ring of experience: "The only place one can be sure of seeing even the tops of their (the Guards') hats is close to the railing on the Victoria Monument. However, even though you are wisely the first of the crowd to arrive, you will soon find yourself back in the rear line—unless you are willing to push and shove in defense of your rights, as all too many seem quite willing to do in defense of theirs. . . . The Horse Guards can be taken with comparative comfort and from the best possible angle from the island in the square and to the right of Victoria Monument, as one faces Buckingham Palace."

Mrs. Brock's other experiences in filming matters while in London have to do with interior work. Although they are definitely the "once in a million" kind of thing, they seemed too good to withhold, so here's the report: "At the British Museum, rather than take the responsibility of checking such a valuable thing as my movie camera (most public buildings throughout Europe require all cameras to be checked on entrance), the authorities insisted that I take it with me. I objected to carrying seven pounds all about the place unless I could use it . . . so they told me finally to go ahead and use it.

"Encouraged by this experience at the Museum, I took my camera to the Tower of London. Here it was promptly and irrevocably checked. Even my in-



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dication that other tourists were being freely allowed the use of still cameras made no difference, and I had to leave without a shot of the ravens at the drinking fountain, a loss I have regretted ever since."

Across the Channel, Paris awaits you and with it the sage counsel of Salvatore Catania, ACL. "I open my reel," writes Mr. Catania, "on a scene of the Eiffel Tower with the Seine River in the foreground. To my mind, this view is as typical of Paris as the skyline is of New York. This is followed by a series of shots, taken in front of the Opera House, showing the buses stopping, discharging passengers, taking others on and moving out of the picture. Close by is the famous Café de la Paix with its name in large white script letters. This makes a beautiful title introducing café life in the French capital. A few shots show the people sitting at the sidewalk tables sipping their drinks, chatting and observing the passersby. By occupying a rear table, I obtained a fine shot of the patrons from the rear, thus giving the audience the illusion of being seated at one of the tables, watching the people going by.

"No reel on Paris, to my mind, would be complete without some shots of the Place de la Concorde, the Arc de Triomphe and the picturesque policemen. While on this topic, I must mention a certain policeman, who sports a generous flowing beard and who directs traffic near the Porte St. Denis. He is only too willing to have himself filmed. I noticed that recently he appeared in a newsreel.

"For typical street scenes, the boulevards with their newsstands, cafés and pedestrians are unsurpassed. These shots can be followed for contrast by a view or two of the fast disappearing narrow streets near Notre Dame. For a closing scene, I used the same shot with which I opened the reel—the Eiffel Tower and the Seine River—while this time the vignetter closed up very slowly."

For the same city, William R. C. Corson, ACL, contributes a suggested sequence which might well escape the notice of the usual tourist routine. It is of "the stamp collectors' market, which meets, I think, each forenoon at the Rond Point. Here, quite a large gathering of collectors display on easels the stamps they have for trading. A spirited scene, it offers fine opportunity to make characteristic closeups of Frenchmen in action." In liking this kind of material, Mr. Corson concurs with Mr. Goeben, who advises in general: "Take mainly street scenes and close shots of the native people at their daily pursuits. Watch for human interest and let the scenery be incidental."

Again, in Holland, Mr. Corson has found a subject which impresses him as out of the way, but well worth filming effort. It is "Aylesmere, the center of the flower growing industry, where each day cut flowers are shipped in great planes to the many large cities of Europe. The gardens are alive with color and picturesquely marked off by small canals."

Directly from this charming nation comes the friendly counsel of Leo R. Kryn, president of the Nederlandsche Smalfilmliga. "The principal assets are the old towns and villages, the wide horizons, the water and the sky. The sky changes every moment, and this change is reflected in the water which changes at the same time although in a different way.

"In Amsterdam, I suggest that you film the older parts of the city (boat trip on the canals, for example), the new architecture and the museums. Take an excursion to Haarlem and film the Frans Hals Museum and the Hofjes (enclosures with little houses for old people). Zandvoort is a seaside resort where you can find our countrymen at play. Other places within easy reach are Leiden, an old university town; Volendam and Marken, where you will not want to miss the typical costumes; Alkmaar, where you will find the cheese market in action on Fridays; the Gooi (Bussum, Hilversum, Loosdrecht, where there are lakes and sailing).

"At The Hague, film the Palace of Peace and, at Rotterdam, get scenes of the harbor. If possible, be sure to visit Middelburg on the isle Walcheren, for it is a beautiful old town and offers the Thursday market, which will provide plenty of material for any cine camera. If you can take a motor trip, you certainly will not want to miss the Zuiderzee dike or the village Giethoorn, where all transportation takes place on water. Our tourist club, the A. N. W. B., will gladly give you information.

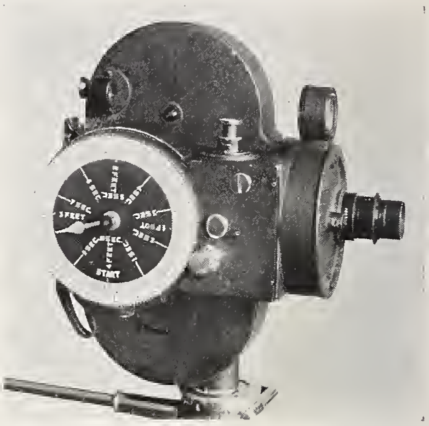
"Come to Holland with open, receptive eyes. You will enjoy your trip and will add some delightful reels to your collection. Welcome to you."

News of the industry

[Continued from page 350]

would welcome the chance to have in their film libraries some interesting aspects of the personal and political life of the Republican candidate, Governor Alfred M. Landon, may wish to acquire the films recently made on 16mm. by E. M. Barnard, ACL, and distributed by The Calvin Company, Kansas City, Mo. This historical film material is available for sale in two 400 foot reels or in one reel, offering a condensed version.

Garrison ■ The release of a new line of exceptional foreign language 16mm. sound films for educational and entertainment purposes is announced by Garrison Film Distributors, Inc., 729 Seventh Avenue, New York. These include the *Village Symphony*, produced in Austria, with music and scenic effects. Also is offered the *Oval Portrait*, an Edgar Allan Poe story produced at the University of California.



Frame counter offered by Art. Wolff is geared to mechanism

Reynolds film cleaner ■ A well made, compact, efficient yet inexpensive film cleaner is announced this month by Ernest M. Reynolds, 165 East 191st Street, Cleveland, Ohio. The device is made of cast aluminum and is finely finished. Four cleaning pads (which are renewable) are held at one time, thereby giving three cleaning channels. These pads are kept in position by pilot pins, assuring a smooth, even cleaning surface at all times. Cleaning fluid is fed to the pads through a perforated surface, and only a few drops are needed for efficient operation. The film is then passed between the pads, from one rewind to the other.

Central catalog ■ The *Photographic Almanac*, a new booklet containing attractive listings of still and cine material, has been prepared by the Central Camera Company, 230 South Wabash Avenue, Chicago. A copy will be sent to any Movie Makers reader on request.

Mirotex products ■ A new type humidor carrying case for 1600 foot, 16mm. film reels recently has been introduced by Mirotex Products, 6241 Southwood Avenue, St. Louis, Mo. The case is substantially built of metal and is finished in black crackle. Another new departure in film humidors is the Mirotex multi compartment case, built to preserve and humidify miniature camera negatives in rolls. The humidor holds 192 separate rolls of film and is built of steel, with black crackle finish. It is light, compact and affords an excellent means of keeping roll film negatives in tiptop condition. A new viewing box, which provides an illuminated viewing background for all films up to five by seven inches in size, is also featured.

Book reviews

■ *The Student's Manual of Microscopic Technique*, 210 p., cloth, by J. Carroll Tobias; American Photographic Publishing Co.. Boston; $2.50.

The student of microscopic technique will find this well written book very valuable, for it sets forth the principles of using various kinds of microscopes in a clear and clean cut fashion. The chapter on photomicrography, while quite helpful to the user of still cameras, does not mention motion picture cameras or how they may be used in this field. Much of the data on lighting, preparation of slides and general technique would be helpful, but there is not enough data to enable the movie maker to proceed with cinemicrography.

■ *Educational Film Catalog*, 134 p., cloth; H. W. Wilson Company, New York City; $2.00; with subscription to supplements, $4.00.

This catalog, compiled by Dorothy E. Cook and Eve Cotter Rahbek-Smith, is a selected and classified list of 1175 non theatrical films, with both title and subject index. Films are classified according to the Dewey Decimal System, which is outlined in the forepart of the book, and each film is given a brief review. The index includes in one alphabet the titles, subjects and, in some cases, the actors and authors of the films listed. Directories of producers and distributors are appended. Supplements will be issued in 1937 and 1938. The catalog is expertly prepared and undoubtedly will be of great service in the non theatrical field.

■ *Romeo and Juliet, A Motion Picture Edition*, 209 p., cloth; Random House, New York City; $2.00.

In the Metro Goldwyn Mayer production of *Romeo and Juliet*, one of Shakespeare's great tragedies was brought to the talking screen. It is the purpose of this book to suggest to the literate public how the play's transition from a dramatic to a motion picture medium was accomplished. To that end, Random House has gathered together, in an attractively printed and bound volume, the complete first folio text of Shakespeare's drama, the final — but apparently not the working—script of the motion picture and a series of complementary notes by such workers on the film as Irving Thalberg, producer; Professor William Strunk, jr., of Cornell University, literary adviser; George Cukor, director; Talbot Jennings, scenarist; Cedric Gibbons, set designer; Adrian, costume designer. These notes, in our estimation, will be a disappointment to any practicing amateur who is a serious student of the cinema. Short, untechnical and non committal, they add little of value to the analysis of methods so desired by an active movie maker—largely, of course, because they were not written for movie makers in the first place. The direct comparison, however, between the text of the play and the script of the film cannot help but be of interest and aid to any serious amateur cinematographer. The inherent speed, mobility, colorful realism and smooth coherence of a good motion picture are clearly visible in many parts of this transmutation from stage to screen. It is our belief that this major study of the book makes it a welcome and desirable addition to the cinematic library of all intelligent movie makers and students of the cinema.

Wake up and shoot!

[Continued from page 335]

is most appropriate when it forms part of the film story and is not dragged in by the scruff of the neck for its own sake alone. Thus, in a camp film, a foggy, diffused shot produced by the use of white gauze before the lens could well be used in shots of the early morning. The gauze will enhance the desired atmosphere. In a like manner, the red filter, giving the effect of a lowering sky, could be used as the camper seeks shelter in his tent.

In the same way, lap dissolves may become an unobtrusive but highly effective part of the action. The introduction to a beach party filmed in color may be made more interesting by dissolving from a scene of one of the girls in a sport dress to a shot of the same girl in her bathing suit.

Now let us proceed around the corner of the camera, and we come to the speed control. What a wealth of possibilities lies in this device! Maybe we have used it already; yes, of course we have—in the slow motion shots of our golf swings and in the graceful studies of diving action. We know how to alter the lens stop to compensate for the altered speed of the film. But, after a while, we gave up using it because, perhaps, it ate up film too fast. But no film speed deserves this accusation if it really produces something worth the doing. Let's see. Here we have portly Uncle John aboard the little steamer, which is doing some plain and fancy pitching. Uncle is slightly under the weather. He gazes pensively over the rail. There follows a shot, taken in slow motion, of the plunge and surge of spray under the bow. A few feet of this, and we understand Uncle's feelings exactly. A waste of film? Certainly not.

Half speed offers similar possibilities. Little Freddy doesn't care so much for his spinach. But mother appears on the horizon with a delicious piece of chocolate cake, and Freddy consumes the spinach in jig time, by the aid of an eight frame speed.

These examples, of course, are pretty

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Tucson: 1. Ed. Litt, Cor. Congress & Stone.

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Fort Smith: McCann's, 714 Garrison Ave.
Little Rock: Jungkind Photo Supply Co., 114 W. Fourth St.

CALIFORNIA

Azusa: Ward's Photo Shop, 735 Azusa Ave.
Berkeley: Berkeley Commercial Photo Co., 2515 Bancroft Way.
Beverly Hills: W. L. Martindale, 9477 Santa Monica Blvd.
El Monte: Anderson Photo Service, 232 W. Valley Blvd.
Fillmore: Ellsworth Electric, 341 Central Ave.
Fresno: Laval Co., Inc., 1319 L St.
Photo Service Co., 1931 Mariposa St.
Potter Drug Co., 1102 Fulton St.
Stillman Drug Co., 2001 Van Ness Blvd.
Glendale: Glenar Studio, 209 E. Broadway.
Glendale Camera & Gift Shop, 327½ N. Brand Blvd.
A. L. Kirkhuff Camera & Movie Supply Co., 123 S. Brand Blvd.
Hollywood: Bell & Howell Co., 716 N. La Brea Ave.
Camera Mart, 1652 N. Cahuenga Blvd.
Hollywood Camera Exchange, Ltd., 1600 N. Cahuenga Blvd.
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Richter's Photo Service, 7901 Santa Monica Blvd.
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Long Beach: May Studio, 123 E. Fourth St.
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Choyei-Do, 122 S. San Pedro St.
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Los Angeles Film Library, 832 Wilshire Blvd.
Marshutz Optical Co., 518 W. 6th St.
W. L. Martindale, 610 S. Western Ave.
Peterson's Camera Exchange, 356 S. Broadway.
Victor Animatograph Corp., 2402 W. Seventh St.
Wilshire Personal Movie Co., 3150 Wilshire Blvd.
Wilshire Photo Service, 5115 W. Picox Blvd.
Napa: Levinsons Pharmacy, 948 Main St.
Oakland: Camera Corner, 431-14th St.
Eastman Kodak Stores, Inc., 1918 Broadway.
Oakland Camera Exchange, 376 14th St.
Sherman, Clay & Co., H. C. Capwell Bldg.
Smith Bros., Inc., 1721 Broadway.
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Harold A. Parker Studio, 479 E. Colorado St.
F. W. Reed Co., 176 E. Colorado St.
A. C. Vroman, Inc., 329 E. Colorado St.
Riverside: F. W. Twogood, 3700 Main St.
Sacramento: Kimball-Upson Co., 1030 K St.
Magneto Shop, 1020 14th St.
Frank McDougal, 1017 10th St.
Salinas: Anderson's Electric Shop, 342 Main St.
San Bernardino: Arrowhead Photo Service, 610 Third St.
San Diego: Bunnell Photo Shop, 1033 Sixth Ave.
Eastman Kodak Stores, Inc., 419 Broadway.
Harold E. Lutes, 958 Fifth St.
San Francisco: Camera Shop, 145 Kearny St.
Duhem Motion Picture Mfg. Co., 135 Hayes St. (Civic Center).
Eastman Kodak Stores, Inc., 216 Post St.
Hirsch & Kaye, 239 Grant Ave.
Miniature Camera Shop, 1600 Post St.
San Francisco Camera Exchange, 88 Third St.
Schwabacher-Frey Co., 735 Market St.
Sherman, Clay & Co., Kearny and Sutter Sts.
Trainer-Parsons Optical Co., 228 Post St.
San Jose: Sherman, Clay & Co., 273 S. First St.
Webb's Photo Supply Store, 66 S. First St.
Wolff's, 94 S. First St.
Santa Ana: Stein's Stationery Store, 307 W. Fourth St.
Santa Barbara: J. W. Collinge, 19 E. Canon Perdido St.
Santa Monica: W. W. Martindale, 3rd & Bway.
South Gate: Hollywoodland Studios, 9320 California Ave.
Stockton: Holden Drug Co., 345 E. Weber Ave.
Logan Studios, 20 N. San Joaquin St.
Nathan Reiman, 528 E. Main St.

COLORADO

Denver: Akin & Bagshaw, Inc., 1425 Williams St.
Eastman Kodak Stores, Inc., 626-16th St.
Haanstad's Camera Shop, 404-16th St.
Home Movie Sales Agency, 259 S. Corona St.
The May Co., 16th & Champa Sts.
Grand Junction: Lincoln Park Pharmacy, 727 N. 12th St.
Gunnison: Little Art Studio, 247 N. Main St.
Montrose: Hess Drug Store.
Pueblo: Camera Craft Shop, 503 Court St.

CONNECTICUT

Bridgeport: Fritz & Hawley, Inc., 1030 Main St.
Harvey & Lewis Co., 1148 Main St.
Bristol: Lee E. Paulmann, 252 Main St.
Hartford: Harvey & Lewis Co., 852 Main St.
Watkins Bros., Inc., 241 Asylum St.
Meriden: Broderick & Curtin, 42 E. Main St.
Middletown: F. B. Fountain Co., 483 Main St.
New Haven: Fritz & Hawley, Inc., 816 Chapel St.
Harvey & Lewis Co., 849 Chapel St.
Mongillo's, 193 Church St.
Yale Cooperative Corp., 300 York St.
Norwich: Cranston Co., 25-29 Broadway.
Torrington: Flieg & Newbury, 45 Water St.
Waterbury: Curtis Art Co., 65 W. Main St.
Wilhelm, Inc., 139 W. Main St.

DELAWARE

Wilmington: Butler's, Inc., 415 Market St.
Delaware Amateur Motion Picture Sales, 616 W. 32nd St.
Frost Store, 915 Shipley St.
Wilmington Elec. Spec. Co., Inc., 405 Delaware Ave.

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Columbia Photo Supply Co., Inc., 1424 New York Ave., N. W.
Eastman Kodak Stores, Inc., 607-14th St., N. W.
Fuller & d'Albert, Inc., 815-10th St., N. W.
Izzy's Exchange, Inc., 905 D Street, N. W.
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Jacksonville: Eastman Kodak Stores, Inc., 129 W. Adams St.
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Panama City: Friendly News Stand, Rear of First National Bank.
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Tampa: Burgert Bros., Inc., 608 Madison St.
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Atlanta: Eastman Kodak Stores, Inc., 183 Peachtree St.
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CENTRAL CAMERA CO., 230 S. Wabash Ave.
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Almer Coe & Co., 78 E. Jackson Blvd.
18 So. La Salle St.
105 N. Wabash Ave.
Eastman Kodak Stores Co., 133 N. Wabash Ave.
Fair, The, Dept. 93, State, Adams & Dearborn Sts.
Marshall Field & Co., Photographic Dept., Sec. 59, State and Washington.
Movie Supply Co., 844 S. Wabash Ave.
Norman-Willets Co., 318 W. Washington St.
Post Office News Co., 71 W. Monroe St.
Randolph News, 63 W. Randolph St.
Seamans, Photo Finisher, 1953 E. 71st St.
De Kalb: Lundberg's News Stand, 324 E. Lincoln Highway.
Evanston: Almer Coe & Co., 1645 Orrington Ave.
Hattstrom & Sanders, Inc., 702 Church St.
Galesburg: Illinois Camera Shop, 84 S. Prairie St.
Joliet: Mercier Photographic Service, 915 Prairie Ave.
Oak Park: Hattstrom & Sanders, Inc., 1001 Lake St.
Peoria: Nichols, 104 S. Jefferson Ave.
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Rockford: Camera Craft Shoppe. 112 N. Main St.
Springfield: Camera Shop, 320 S. 5th St.

INDIANA

Fort Wayne: Howard Co., Inc., 112 W. Wayne St.
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Frankfort: A. G. Chittick, 206 E. Walnut St.
Indianapolis: R. B. Annis Co., 1505-7 E. Michigan St.
L. S. Ayres & Co., Dept. 290, 1 W. Washington St.
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H. Lieber Co., 24 W. Washington St.
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Davenport: Eastman Kodak Stores, Inc., 318 Brady St.
Des Moines: Eastman Kodak Stores, Inc., 808 Locust St.
Westing Photo Service, 3816-6th Ave.
Iowa City: Rexall & Kodak Store, 124 E. College St.
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Eastman Kodak Stores, Inc., 608 Pierce St.

KANSAS

Salina: Bangs Jewelry Co., 114 W. Iron Ave.
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KENTUCKY

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New Orleans: Eastman Kodak Stores, Inc., 213 Baronne St.
Harcol Motion Picture Industries, Inc., 610 Baronne St.

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Baltimore: Eastman Kodak Stores, Inc., 309 N. Charles St.
Lewy Movie Service, 853 N. Eutaw St., at Biddle.
Stark-Films, 219 W. Centre St.
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Boston: Eastman Kodak Stores, Inc., 38 Bromfield St.
Hotel Statler.
Film Library of New England, 239 Columbus Ave.
Ralph Harris & Co., 47 Bromfield St.
Iver Johnson Sporting Goods Co., 155 Washington St.
Leeds 16mm. Cine Service, 100 Boylston St., Colonial Theatre Bldg.
Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
Pathescope Co., of the N. E., Inc., 438 Stuart St., cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
Cambridge: John H. Derby, Inc., Harvard Sq.
E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
Frank C. Hagyard, Main St.
Lowell: Donaldson's, 75 Merrimack St.
Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
Pittsfield: E. J. Curtis, Inc., 397 North St.
E. C. Kilian, 411 North St.
Salem: North Shore Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Westfield: North Side Pharmacy, 34 N. Elm St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1235 Washington Blvd.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.
Sault Ste. Marie: Kenneth R. Eddy, 119 Peck St.

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. 5th St.
St. Paul: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.
Winona: Harry Priewert Photo Supplies, 69 E. 4th St.

(Continued on page 364)

ordinary, but they are given in the hope of encouraging the reader to *use* his camera's attributes to the full and in the course of his everyday filming. They are there to be used, and one should take full advantage of them. We already have seen that it is no matter of great cleverness to use them. In fact, we think that all the filmer needs, actually, is to have the consciousness that they are there.

Let's now pass down under the camera, to finish our new inspection. Here, we find the tripod socket. What more prosaic and uninspired gadget than this? Yet, this unobtrusive little threaded recess is one of the most important aids to good pictures. What a pity it is so little used! For a camera firmly attached to its tripod has already won half the recognition that comes to good, steady pictures. You may have nerves of steel and a viselike grip as well, but you can never hold a camera as steady as a tripod will. Besides, on a tripod, the camera points where you wish and stays pointed while you make other arrangements. Sometimes, it happens that the tripod screw is a little longer than the depth of the camera socket. To remedy this, cut out a series of cardboard washers of wide diameter, each with a hole punched in the center, and use these to fill up the space. Of course, thick cardboard is better than thin. Naturally, for permanence, one may use sheet lead, leather or hard rubber. But the main thing is to have the washer wide, so that the camera will be well supported.

Some day, a manufacturer will bring out a camera with a tripod socket at the top of the camera as well as at the bottom. Then we can take inverted pictures at will, using the backward effect, either with or without slow motion, half speed and so on, to further our cinematic plans. Right now, it is possible to purchase camera inverters, and they are very handy for this purpose.

But, whatever the camera accessories available, let us remember to use them when the right opportunity arises. And we can make opportunities in our hobby.

Amateur clubs

[Continued from page 343]

nians entered the Buffalo club rooms, they were greeted by the strains of Canada's national anthem. Early in a program of outstanding films, made entirely in Canada by Edward A. Bollinger, ACL, the guests were welcomed further by shots of the Dominion's Union Jack. *Ultima Thule* and *Peggy's Cove*, joint Ten Best winners for Mr. and Mrs. Bollinger, were presented with their companion reels, *Annapolis Land* and *Guide's Meet*. A film on 8mm. Kodachrome, by Dr. Edward G. Eschner, which featured a series of smooth fades and dissolves, concluded the formal part of the meeting.

The Toronto club earlier had celebrated the conclusion of its first year of activity with a banquet and annual elections. The executive committee for the coming year will include Alan Moorhouse, ACL, chairman, Leslie Thatcher, ACL, Sidney Sampson, ACL, Clifford Shorney, Wilford Prissick, Glen Downey, John Biggart, George Aldcroft and Narcisse Pelletier, ACL. Mr. Pelletier is announced as acting editor of the club bulletin.

Talk on Titles ■ Meeting in the home of Robert F. Gowen, ACL, members of the Mount Kisco Cinemats recently witnessed a demonstration by Mr. Gowen of title making, which included shooting, dark room development in their presence, drying and projection all in one evening. A lecture on light analysis followed, given by Claremont J. Koenig and Major W. T. R. Price, of the Scarborough School, which was illustrated with the use of a new type of projection color wheel designed by the speakers. Members of the Mount Kisco club have agreed that each must submit a film for review every three months, so that with a staggered schedule there will always be pictures for critical review.

East meets West ■ A program of 8mm. films sent on exchange from the Chicago Cinema Club was featured at a late meeting of the Los Angeles 8mm. Club, in California, according to the announcement of secretary Barnes Ward. Outstanding among these films were *Royal Road to Romance*, by Charles Wyman, and *Building an Airplane*, by H. G. Aschoff, ACL, recent award winners in an 8mm. contest conducted by the Illinois group. A representative collection of West Coast 8mm. work, noted earlier in this department, had been sent to Chicago in exchange.

Berkeley active ■ Interest and activity among members of the Berkeley Amateur Motion Picture Club, in California, has been of the keenest, judging from a late dispatch from Edgar J. Touraine, ACL, secretary. Among the members' films presented for clinical screening are 100 feet, 8mm. of personal scenes, by L. Williams, ACL; *Winter Sports in Yosemite*, 16mm. Kodachrome, by Uriel Smith, ACL; *San Francisco Oakland Bay Bridge*, 400 feet of 16mm. Kodachrome, by Dr. Delmer J. Frazier, ACL; *Title Demonstrations*, by G. Manning, ACL; 100 feet, 16mm. Kodachrome, by J. W. Lee; progress scenes of the Bay Bridge, by Mr. Touraine. Late meetings have been held in the basement projection and game room of Dr. Kenneth Palmer, ACL, and Mrs. Palmer, on the first Wednesday of each month.

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1143	The Claw	6	1410	Felix	1
1126	Marriage Market	5	1608	Egyptian Adventures	1
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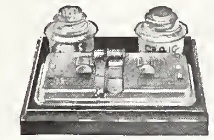

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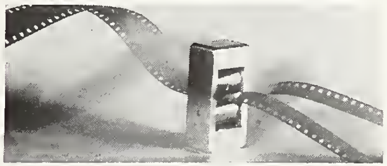

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Motion Picture Department
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(Continued from page 362)

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Kansas City: ***CALVIN CO.,*** B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
W. Schiller & Co., 6 S. Broadway.
Scruggs-Vandervoort-Barney Dry Goods Co., Dept. No. 551, Ninth to Tenth, Olive and Locust.

MONTANA

Butte: Al's Photo Shop, 42 N. Main St.

NEBRASKA

Beatrice: Roszell's, Roszell Bldg., No. 5th St.
Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O St.
Omaha: Eastman Kodak Stores, Inc., 1618 Harney St.
J. G. Kretschmer & Co., 1617 Harney St.
Sidney: Sidney Drug Co., 1001 Illinois St.
Tecumseh: Gamble Store Agency.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Nashua: Nashua Optical Co., 202 Main St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St. (Display at 36 Clifton Ave.)
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Firemen's Pharmacy Co., 765 Broad St.
GRUBER'S CAMERA EXCHANGE, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Trenton: Dwyer Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
Stewart's School Films, 143 Hunter Ave.
Vineland: Royce Studio, 634 Landis Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: Aladdin Camera Exchange, 4 E. 32nd St.
American News Co. and its Subsidiaries, 131 Varick St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
J. H. Boozer, 145 E. 60th St., nr. Lexington Ave.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
Luma Camera Service, Inc., 330 W. 42nd St.
MADISON MART, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Rubin's Film Exchange, 11 Essex St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Port Chester: John F. Mowbray, Capitol Theatre Bldg.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Edwin A. Hahn, 223 Columbia St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 183 S. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, Second and Lake Sts.
Canton: Camera Shop, 531 Market Ave. N.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. 4th St.
Huber Art Co., 124-7th St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. 6th St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Lima: Acme Cine Service, 1204 W. Market St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Harold E. Monroe, 802 Waller St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc,, 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., 101 E. 4th St.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H. & R. Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M. & H. Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126-6th St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers, 416 N. 5th St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.,
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Metropolitan Photo Supply Co., 33 Aborn St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores. Inc., 1415-4th Ave.
Lowman & Hanford, 1512-2nd Ave.
Sherman. Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House. 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & 4th St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., 3rd and Garfield.
12th and Vliet.
11th and Mitchell.
Phillips: Jakoubek's Photo Shop.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSION

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., 252 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News, Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce. 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co., Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 445 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Arts Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Leeds 1: Pearson & Denham (Photo), Ltd., 6 Bond St.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbins (Suburban) Ltd., 131 High St., Putney.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 13 & 14 Great Castle St., Oxford Circus.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8.: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Yrjonkatu 17A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Establs. J. ChOtard. 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City." Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka" Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart. 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., 154 Dharamtala St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S. A. F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlein, A/S, Nedre Slotsgate 13.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C. 1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

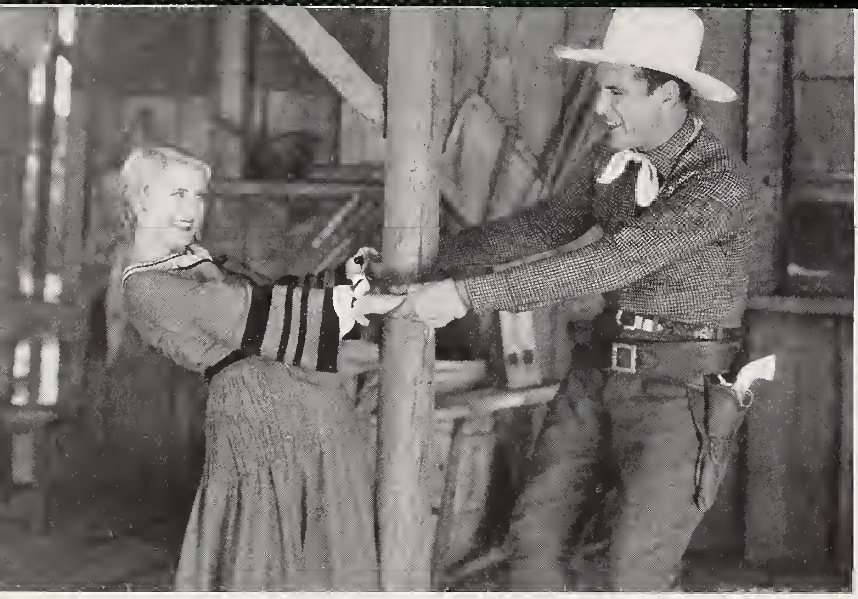
Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co.. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.



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Pluto carries it into the house, and scores of kittens scramble out. They climb all over the house—onto the chandeliers, the wall clock and its swinging pendulum, the grand piano, etc.

Mickey plays Santa Claus; his sleigh, laden with toys, is drawn by Pluto, disguised as a reindeer. Finally this horde of kittens attacks the tree, leaving it stripped of everything but the branches.

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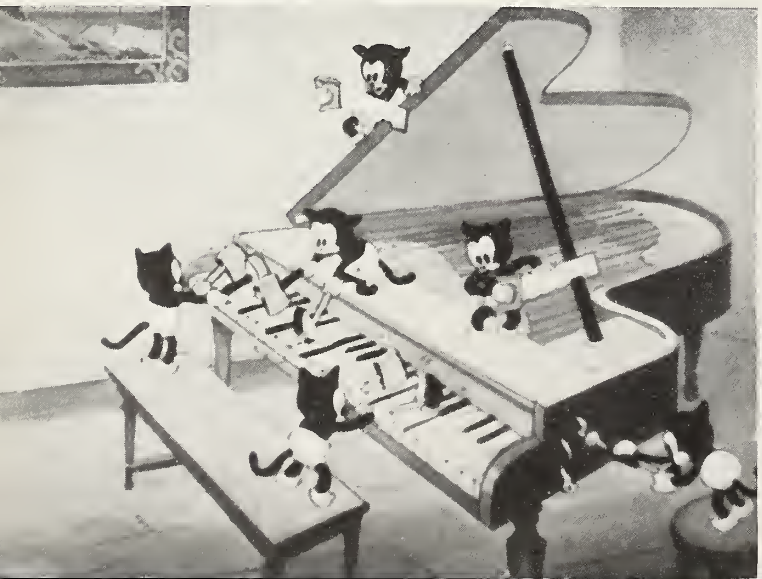

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PRICES

16 mm. Kodachrome, both regular and Type A—50-foot rolls, $4.75; 100-foot rolls, $9.00; 200-foot rolls, $18.00; 50-foot magazines, $5.00. Ciné-Kodak Eight Kodachrome, $3.75 per roll. All prices include processing at Hollywood, Chicago, or Rochester, N. Y.

And owners of 8 mm. cameras taking the standard 25-foot roll of Ciné-Kodak Eight Kodachrome may match their 16 mm. contemporaries stride for stride outdoors, slip on a Kodachrome Filter *for Photoflood* for indoor color filming with the aid of inexpensive Kodaflector.

Ask your dealer to show you Kodachrome movies. Eastman Kodak Company, Rochester, N. Y.

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Every ounce a movie maker. Built-in exposure guide, eye-level finders, automatic footage indicator. $34.50, with Kodak Anastigmat *f*.3.5 lens.

Ciné-Kodak Eight "60"

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Ciné-Kodak Special

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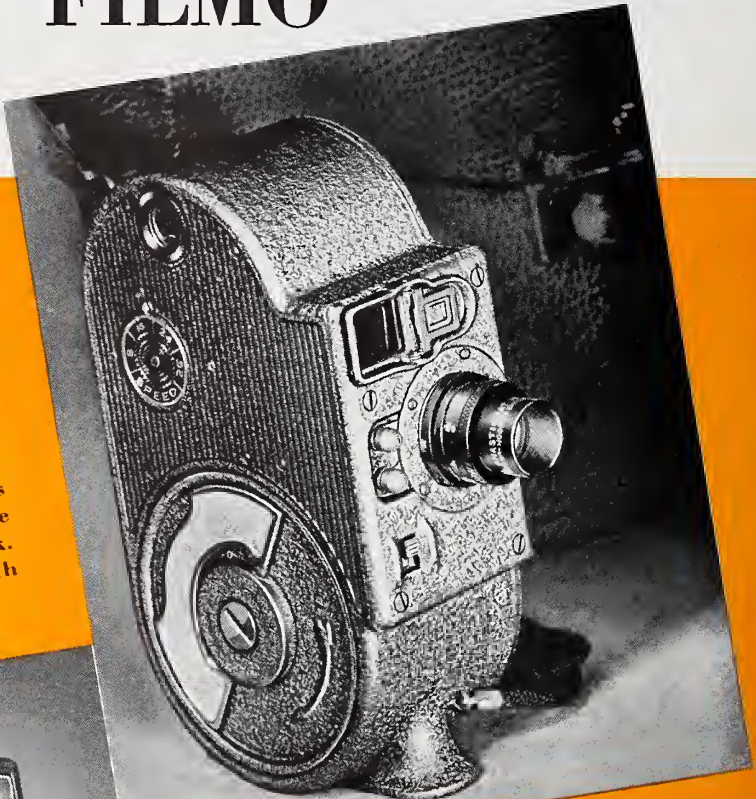

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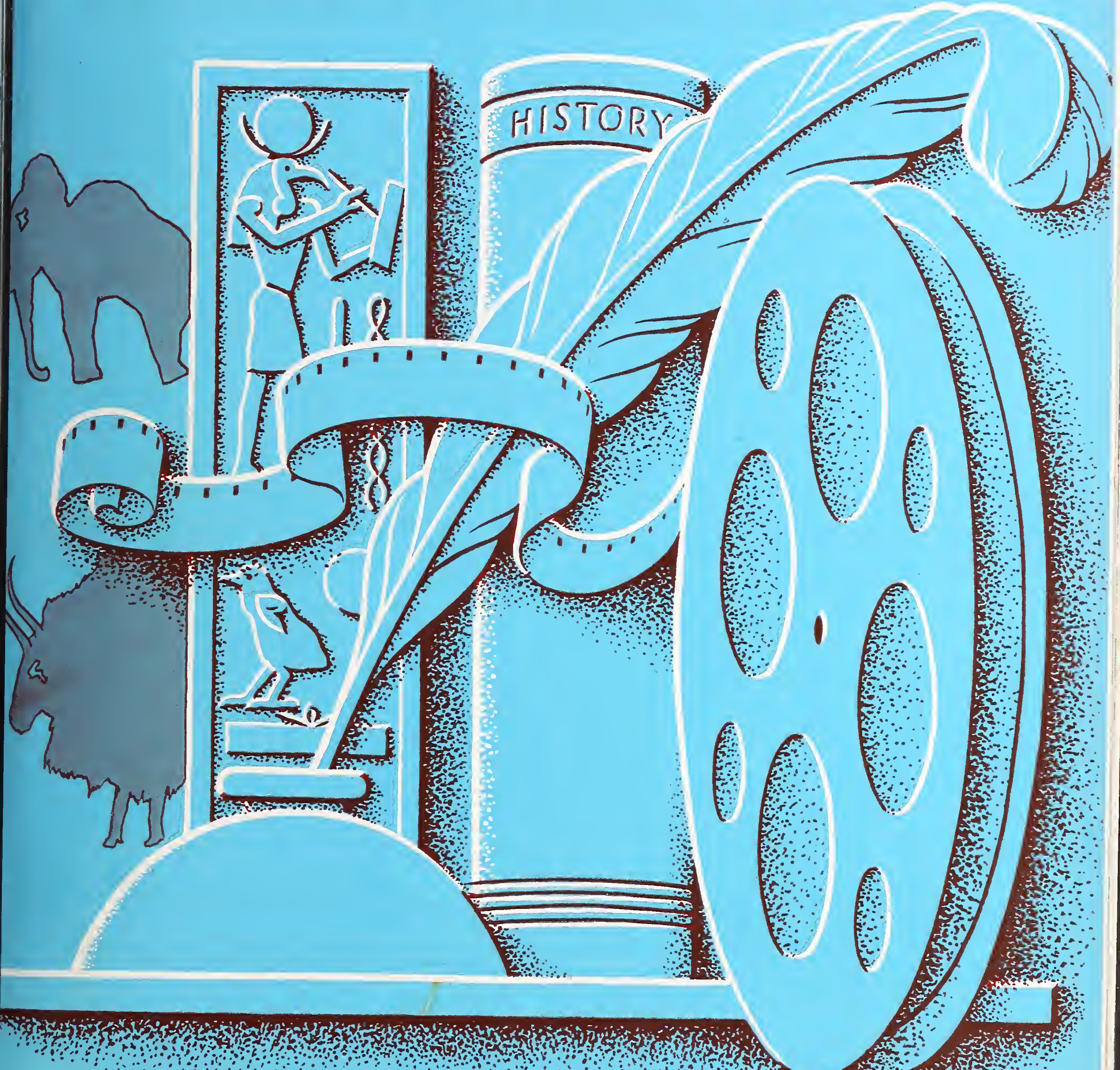
MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.



SEPTEMBER. 1936

25c

What membership in the Amateur Cinema League will bring you—

1. **MOVIE MAKERS** ■ Membership includes a subscription to Movie Makers, a monthly magazine covering every phase of amateur filming, including timely articles on all aspects of movie making technique. Not only does the magazine keep you abreast of all new developments in method and equipment, but it includes in each number several articles designed especially to introduce the new enthusiast into the craft—articles which will present fundamentals of camera operation intelligibly and enjoyably.
2. **TECHNICAL CONSULTING SERVICE** ■ The League's technical consultant will answer any member's question by letter, by 'phone or in person if the member calls. He offers advice and help on exposure, focusing, use of filters, editing, titling or interior lighting—in fact, the whole range of technical problems. This service is not syndicated, but actually individual; the consultant will give full attention to any member's problem, sending him a full discussion, illustrated with diagrams, examples, etc., if necessary.
3. **CONTINUITY AND PHOTOPLAY SERVICE** ■ The continuity consultant will aid you in planning specific films by making continuity and treatment suggestions indicating how to get the most effective results not only in the reel as a whole, but in specific shots. In addition to this aid in "planning in advance," he is always glad to make suggestions for future work. He will give specific suggestions for writing scenarios, he will prepare title wordings and outline new subjects for filming. Detailed service in planning business, professional and industrial pictures is offered.
4. **CLUB SERVICE** ■ Should you wish to organize an amateur motion picture club—either a group to produce photoplays or a club of amateur cameramen—the club department can aid you. Complete organization material, based on the experience of hundreds of clubs, is available. Program suggestions are offered and A CLUB FILM LIBRARY, made up of outstanding films produced by clubs, is circulated among clubs without charge.
5. **FILM REVIEW SERVICE** ■ You may send in any films you wish for criticism and suggestions by the technical and continuity consultants. The member will receive a detailed letter about each picture screened. Editing and titling suggestions are offered and advice on technique for the future is given.
6. **BULLETINS** ■ Booklets and bulletins, covering general and specific subjects on which the movie maker wants up to date, detailed information, are supplied to members without charge. They are issued periodically and give the latest information on the subject that they cover. More important ones are printed as bound booklets and others are clearly and legibly mimeographed. Members, on request, will be sent any or all bulletins that are in print. A member may at any time request that all future bulletins be sent to him as they are published during the period of his membership. These booklets and bulletins can be secured only through membership in the Amateur Cinema League and are not otherwise available. Printed bulletins now current are:

   Cine travel plans—32 pages
   Color filming—26 pages, illustrated
   Scenarios ready to film—32 pages
   Titling technique—32 pages

   In addition to the bulletins, numerous service sheets are available to meet needs for specific information. These are not sent automatically to members but are used by the service departments to fill some of the special requirements for information that come from members.
7. **EQUIPMENT SERVICE** ■ New equipment is being announced constantly and this service will help you to keep your own equipment modernized without duplication of purchases. The League aids members in locating new equipment, in making out filming itineraries and equipment lists and in securing specific films to fill in reels. It will also lend its services to facilitate relations between members and manufacturers and dealers, if this should be requested, and will secure information for its members on conditions affecting movie making in foreign countries.
8. **MAKING BETTER MOVIES** ■ A 241 page book on amateur movie making is sent to every member. Written in clear, non technical language, this book gives directions for every process, every device and every trick in movie making that you will be likely to use. It tells you, step by step, just what to do and how to do it to get the best results from your camera and projector. It is well illustrated.
9. **FILM EXCHANGE** ■ This service on a loan basis is made possible through League membership. As a member, you may list your films in the Film Exchange for temporary loan among members and receive in return the listing, by your fellow members, of hundreds of other reels, available directly from member to member. Available only to members who list films for exchange.
10. **PUBLIC RELATIONS** ■ The League has been able to accomplish much for amateur movie makers. It secured national legislation abolishing the former duty on amateur films, under regulations that are very fair to amateurs. It has aided in opening previously closed filming areas to amateur cine cameras. Further, the League acts as a clearing house for all ideas about movie making and announces these monthly in Movie Makers, which is written by amateurs and for amateurs. Amateur needs are told to the industry that provides equipment, and often new and necessary articles have been developed at the instance of the Amateur Cinema League.

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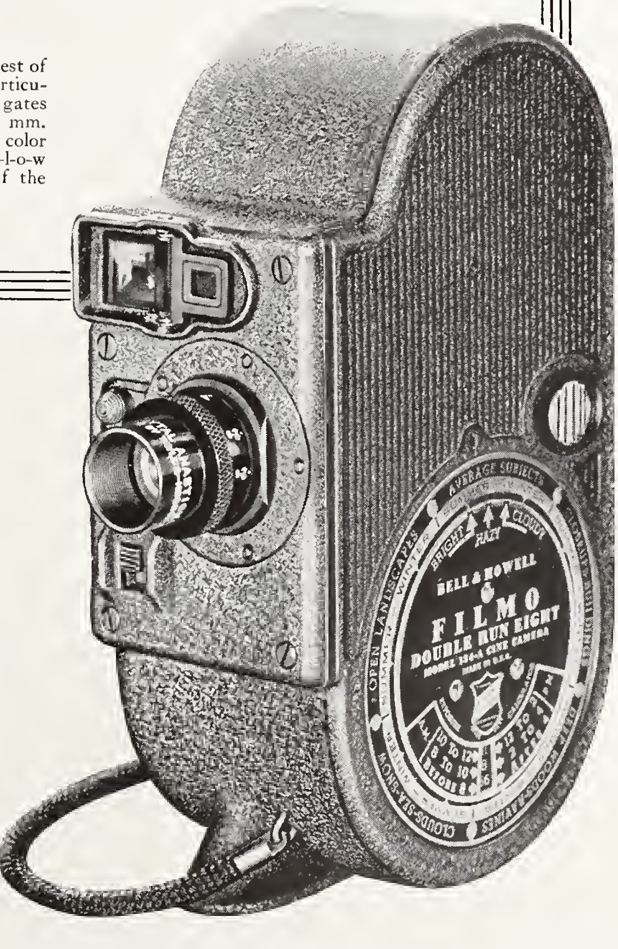

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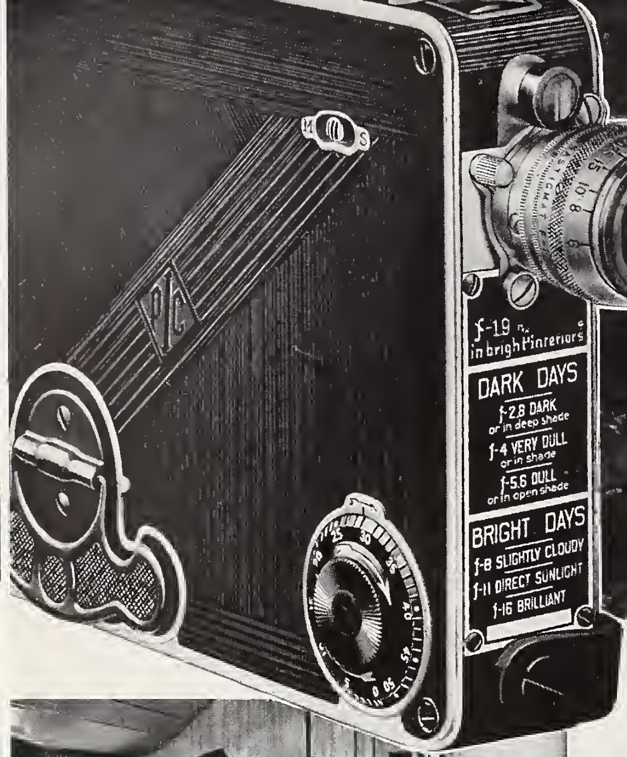

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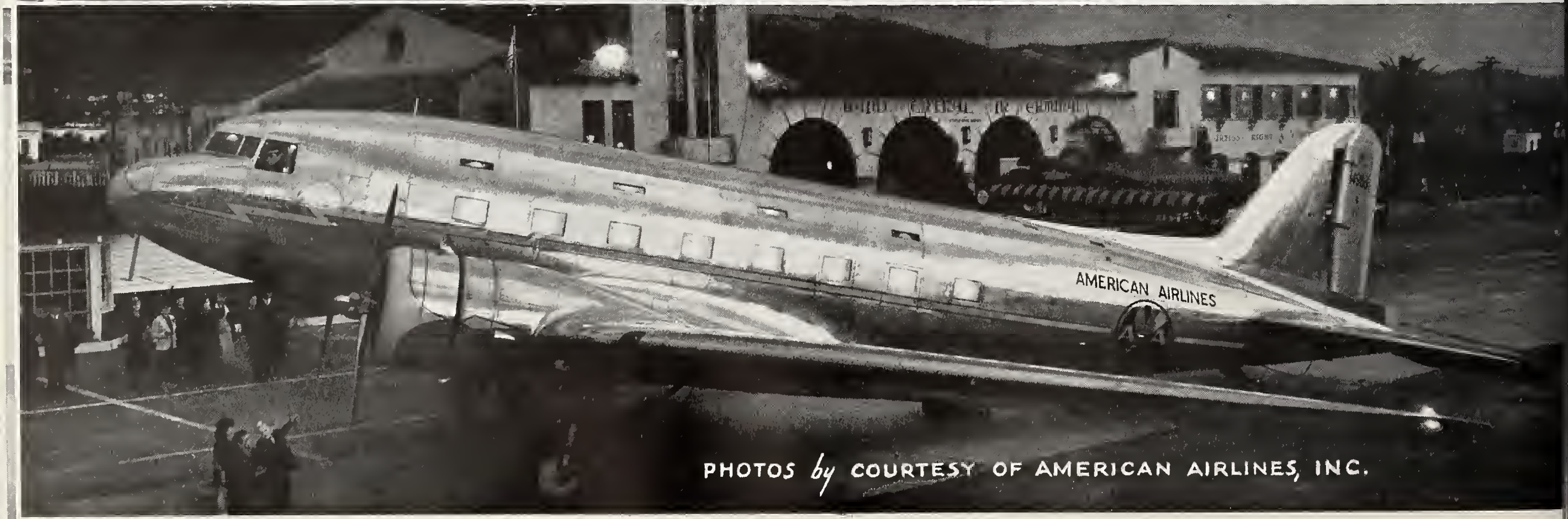

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MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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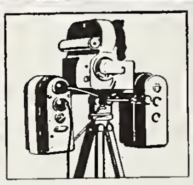

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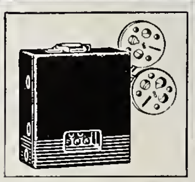

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FALL and winter mean more inside movies. And these interior sequences often put a cinemateur's skill and ingenuity to severe test—unless he's using a film made for indoor work.

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The Ten Best

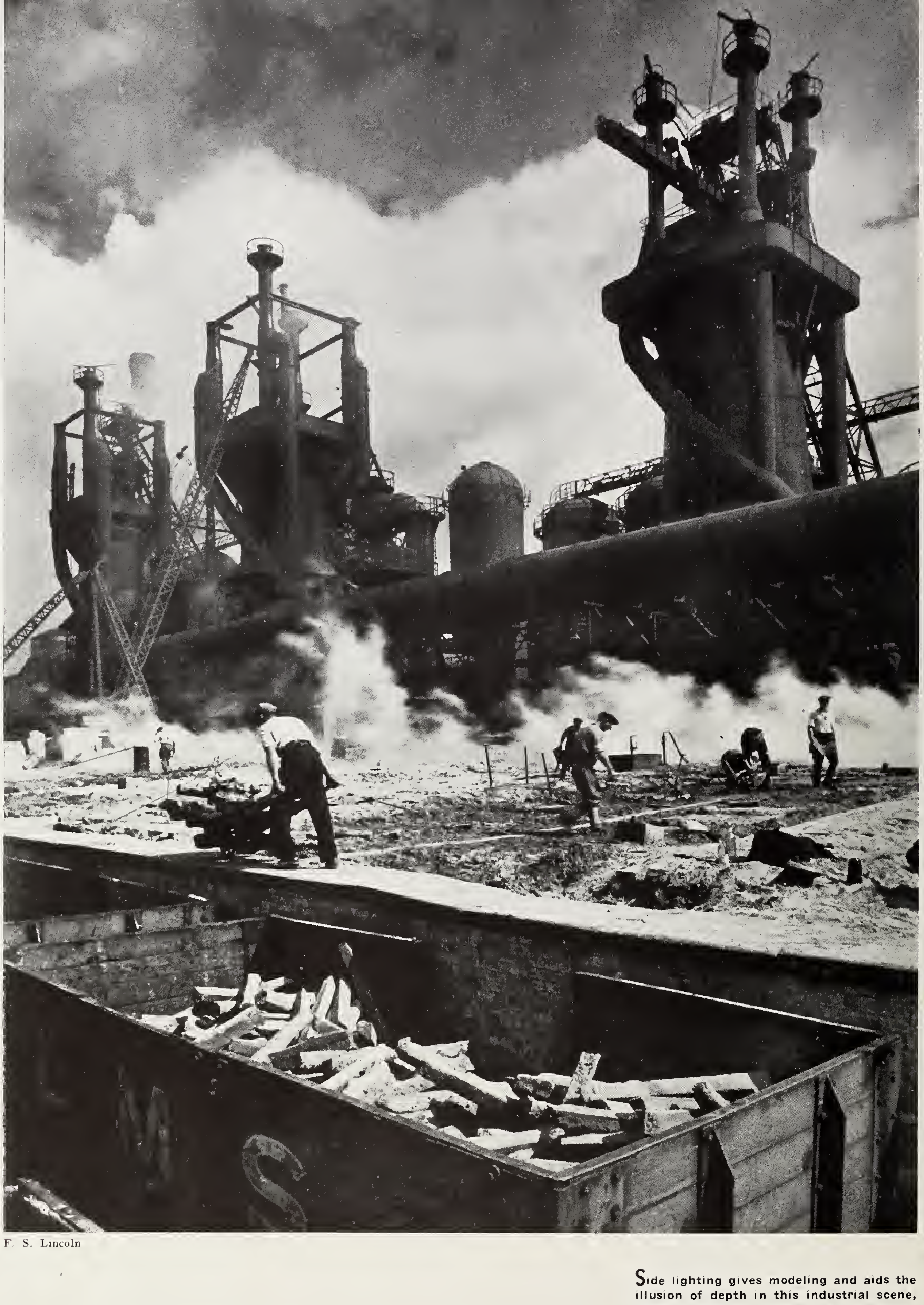
On October 15, a month and a half in the future, Movie Makers will close the 1936 receipt of entries for the next rating of the Ten Best Non Theatrical Films. The closing day has been advanced half a month, this year, for reasons in connection with the two classifications that have been explained in an earlier number of this magazine. The announcement of the Ten Best will, as usual, be made in the December number.

In the month and a half remaining, if previous experience may serve as a guide, films received at League headquarters for the examination and criticism of League consultants will increase sharply in number. Some of this increase is caused, of course, by the fact that summer reels do not get edited until autumn; most of it comes from the determination of movie makers to "get under the wire" for the Ten Best classification.

This least formal of personal movie ratings, this competition with no prizes other than certificates in the form of leader strips, continues to attract the serious efforts of a large number of personal filmers and makers of practical movies. It is the oldest rating in amateur movies, which is one reason why so many are interested in it. It is without formalities, which simplifies the mechanics for contestants. A filmer does not have to secure a leading place in local, regional or national competitions in order to submit his creation to this international classification. He does not have to accept the viewpoints of groups nor to subscribe to any canons of what is or is not an amateur movie. If he made the film for a client and received compensation for it, that fact will automatically place him in competition with others who did likewise, but it will not prevent his being permitted to compete, with the one, single exception that pictures made for clients on 35mm. width, for which compensation is given, cannot be considered. This one exclusion is made in order to secure greater equality in the circumstances in which contestants work.

The jury for this annual rating is a permanent one, made up of the staff of Movie Makers. This jury has performed its selective functions for seven years, during which time it has presumably acquired the confidence of filmers who send in footage, if we may judge from the increasing interest in The Ten Best. It has a background of observation of the trends and improvements in personal filming and it believes that it can "tell a hawk from a handsaw" when it comes to rating movies. Certainly, this jury sees, by and large, more serious amateur efforts than any other anywhere. It operates throughout the year, seeing pictures day after day. Admittedly, a film must have something exceptional to attract the attention of these judges who work at their job year in and year out.

Whether because of the simplicity of competing or the trust competitors have in the jury, or both, Movie Makers Ten Best brings out more and more amateur effort. If you have not pitted your cinematic skill against that of your fellow filmers in previous years, there is still time to do it in 1936. Wherever you are, whoever you are, if you think that any of your footage is above the average, send it in and let it run the course with the best of the year's output. It may be better than you think it is. The gates are open.



F. S. Lincoln

Side lighting gives modeling and aids the illusion of depth in this industrial scene, while a filter emphasizes the tapestry of clouds. Such industrial shots are also extremely effective in color, and here again side lighting would be permissible, since vivid color is not present except in the sky.

MOVIE
MAKERS

Kodachrome is faster

ARTHUR L. GALE, ACL

A NEW, faster 16mm. Kodachrome for outdoor filming has been made available and is for sale at all the photographic dealers. The new film. markedly faster and more accurate in its rendition of greens than the early Kodachrome. carries a notice of the fact that it is faster, which is pasted on the outside of the box. Included in the carton is a revised Daylight Kodachrome Exposure Guide.

Those who have felt that the older Kodachrome did not do justice to the bright greens of foliage will be delighted with the new film, for it will capture green of every hue and description. Since the film does record green with such fidelity and since it is such a common landscape color in the summer, movie makers may find themselves avoiding too many scenes with a preponderance of green, simply to get a greater variety of colors on the screen. This is only a matter of color choice, for Kodachrome will handle the other colors equally well.

While the guide that is packed with each roll of Kodachrome will give excellent results, if it is followed carefully, the more detailed exposure guide prepared by J. F. Holden and presented in his article, *The basis of Kodachrome exposure*, in MOVIE MAKERS, May, 1936, offers a slightly more flexible control over exposure results, with the inevitable drawback that it is slightly more complicated.

However. many movie makers have found it both simple and logical when once the basic procedure is understood, for the principles are unvarying and are applicable to almost any light condition and subject matter that would give good color results in outdoor filming. In fact, it is a pleasure to work with this system, for it is both sure and comprehensive.

As the keystone of this system, outdoor lighting conditions are divided into four fundamental categories for each of which there is a basic Kodachrome exposure. This exposure will give perfect results for subjects of average color, photographed at average camera distances in flat, open light, between 9 a.m. and 4 p.m. These fundamental lighting conditions with basic exposures *for the new, faster* Kodachrome are as follows:

1. Very dark, cloudy, sun not visible and no shadows—basic exposure between *f*/2.8 and *f*/3.5.
2. Cloudy, sky overcast, sun's disc not visible, no shadows but fairly bright—basic exposure *f*/5.6.
3. Hazy sun, position of sun just visible in the sky, gray shadows—basic exposure *f*/8.
4. Average bright sunlight, no clouds *over the sun* (clouds may be in the sky), strong shadows—basic exposure between *f*/8 and *f*/11.

These four fundamental light conditions are illustrated in the chart below. Compare them with the descriptions just given and then practice with them by studying the light outdoors and determining which of the basic exposures you would select for varying conditions. You will be surprised at finding how easy it is to decide whether you are dealing with sky conditions 1, 2, 3 or 4, as the case may be.

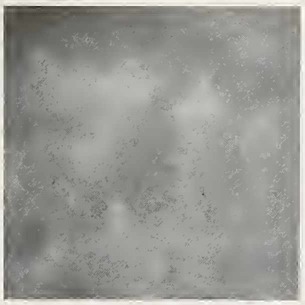
However, the color of the subject, the camera distance and the direction of the light affect these basic exposures. Thus, for light colors, it is necessary to close down the diaphragm one half stop over the basic exposure, while for dark colors one would open up one half stop.

The distance of the subject from the camera is a factor, and hence, for distant shots, one closes down a half stop and, for closeups, one opens up a half stop.

Flat, front lighting is by far the best if true color rendering is desired, but should side lighting be used, because of necessity or desire for an effect, open up one half stop. For back lighting, open a full stop. Side lighting and back lighting can be judged easily by observing the direction of the sunlight and the way the shadows fall. Avoid both when making close scenes of people if you want natural color portraits. Simply keep the sun over your shoulder to get flat light on the subject.

[Continued on page 394]

Light 1.



*f*2.8 - 3.5

Light 2.

*f*5.6

Light 3.

*f*8

Light 4.

BETWEEN
*f*8 AND 11

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Old Mexico in L. A. ■ One hundred and fifteen members and guests of the Los Angeles Cinema Club attended a recent meeting of that thriving organization, held in the Little Theatre of the Padua Hills, near Claremont, Calif. Outstanding among the guests were seventeen members of the neighboring Sunkist Movie Club, led by their president, Burton Frasher, who was introduced to the gathering by Franklin B. Skeele, leader of the Los Angeles group. Old Mexico was the single subject of the evening's program, presented in a number of different phases. Folk singing and dancing accompanied the dinner which preceded the formal gathering. Kenneth Forbes, ACL, then screened six reels of motion pictures which he had produced largely in the rural sections of Mexico, primarily as a study guide in setting and costuming a series of plays then being staged at the Little Theatre. During the screening, Mrs. Garner, of the theatre, commented on the native customs and crafts which were pictured, and later she discussed a series of Mexican costumes which were shown by models at the meeting. These were photographed in color, and Mrs. Garner's comments were recorded on film by a unit of the club under the direction of Fred Champion, ACL.

For Des Moines ■ A simple contest for the best film produced during the past months of 1936 has been announced by Arnold Swanson, chairman of the cine contest committee of the Y. M. C. A. Movie and Camera Club, of Des Moines, Iowa. Entries, which may be on any subject, must run at least four minutes on the screen, with no maximum footage limit stated. Members of the club may submit as many separate entries as desired, with the deadline set for judging on October 27, the date of a regular meeting. A night tour of Des Moines bright lights, a field trip to the "Y" camp near Boone and a hike up the Des Moines River have been features of the Iowans' summer program for both still and movie cameramen.

The Chicago Cinema Club shooting "The Feminine Touch"

W. E. group ■ A veteran among camera groups in industry, the Hawthorne Photographic Club, of the Western Electric Works, in Chicago, Ill., has been carrying on monthly meetings, during the year, of interest to both still and cine enthusiasts. The present officers include D. L. Beckham, president; C. E. McCoy, vicepresident, and R. M. Tabbert, secretary. The committee chairmen are M. Brown, salon; K. A. Kjeldsen, studio; G. S. Hemsted, technical; C. W. Wyman, publicity; B. Zahradka, librarian.

Akron announces ■ *Magic for your Camera* was the subject discussed and demonstrated at a late meeting of the 16 Movie Club, in Akron, Ohio, according to the report of R. H. Griffiths, editor and publisher of the group's *Movie Club News*. A short story, based on a few fundamental camera tricks, was filmed to demonstrate how simple effects are accomplished and how they may be used, either as a basis for a complete film story or as parts of a larger and more routine type of picture. The Akron club has in mind a series of program items based essentially on practical demonstrations.

Staten Island elects ■ Permanent officers now have been elected by the Staten Island Cinema Club, a new and vigorous group organized early this year. They are George T. Smith, ACL, president; Edward W. Wilby, ACL, vicepresident; Frank E. Gunnell, ACL, secretary; Herman Andresen, ACL, treasurer. Messrs. Smith and Wilby will serve also as the program committee. All positions will run until June, 1937, the time of the club's annual business meeting. Late programs have featured the screening of *Love Finds a Way*, by Harry Wohlker; *A Scenic Review*, by Mr. Gunnell; *Newsreel*, by Harry Wilson, ACL; *Mountain Climbing*, produced and lent by Edwin Schwarz, ACL, of the neighboring Metropolitan Motion Picture Club: *An Evening at Home* and *Birds of a Feather*, award winning reels from the League's Club Library.

Summer contest ■ Pleased with the success of their first and recently concluded one hundred foot film contest, members of the Philadelphia Cinema Club are now engaged in preparing pictures for the final of a second competition based directly on summer shooting. A one reel maximum limit is the only restriction placed on entries, which may be on 8 or 16mm. film, monochrome or color. Judging will be done by the entire membership of the club, with a tabulated score sheet, and the results will later be analyzed and presented for study by the technical committee, under the leadership of Horace Wilson. B. N. Levene is the newly appointed publicity secretary of the Philadelphia club.

Cinemats screen ■ At their last meeting before the summer recess, members of the Mount Kisco Cinemats witnessed a number of outstanding members' and guest films, as follows: *Newsreel*, by Dr. Kenneth W. Fish; *Rockwool In-*

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The camera in school

ALEXANDER B. LEWIS AND
JOHN A. DEADY

How movies bring new services and values to students

Wm. W. Klenke

Below, filming the classroom; above, students editing

THE school photoplay or movie club is a popular extra curricular activity, and we are now fairly sure that the cinema, the chief instrument of such a club, is one of the most effective educational devices the world ever has developed.

It is generally agreed that a high school movie club may function along three lines: (1) assist in the visual education program of the school; (2) develop critical judgment of the varied aspects of theatrical films; (3) provide outlets for the artistic and creative impulses of its members.

We are "sold" on number three because of its innate importance in conditioning the other two. Just how does a movie club provide outlets for creative impulses? To begin with, let us assume that it is a fine thing to have the power to appreciate a masterful piece of work that another has produced. But the keenest joy comes not from vicarious experience but from personal creative effort. A cornstalk fiddle may give more satisfaction to its maker than a fine violin, and so with the metamorphosis of the celluloid strip.

First, there is the scenario to be written, then the dramatizing and the directing and, finally, the filming, titling, editing and producing. These several processes call for knowledge and skill that may become perfected with practice. The prospective sponsor need not shy away because he feels that he is an amateur, since there are reliable texts available on this subject. In addition, adequate help may be obtained at any turn of the game.

There are scores of cinema clubs already operating in the American schools, and the number of requests for information indicates that hundreds are in processes of formation. Such a club is expensive; it must use expensive equipment. How can it be financed? If you undertake it, you will need the backing of a school administration with a vision. If you have that, the rest will be easy.

The starting point should be a good 16mm. sound on film projector. Such a machine may be installed by one of several nationally known makers, either on the basis of outright purchase or of time payments. Profit derived from showings will pay for the machine and buy other equipment needed. Silent and talkie pictures are available.

Two shows a month are not too much for the average school, and soon, with the profits from your movie shows, you will be able to buy a 16mm. camera. Get a good one. Remember that your range of movie making activities will be large and that it is wise to anticipate your needs fully. The time quickly will come when your group will want to do trick titles, dissolves, fades and other phases of advanced technique.

The correct use of technical apparatus necessitates some definite instruction. This can be given formally, but it is best given informally to small groups of students who are particularly interested in specific phases of motion picture production. For example, less film will be wasted if pupils are taught to use a modern exposure meter, for the correct use of such a device insures a majority of correct exposures.

Some accessory equipment, such as a dolly, fade out device, series parallel floodlight switches, reflectors, titling boards and the like, can be built by the students in the school shops. Such projects fit especially well into a technical school curriculum. They also can be adapted to the general shop work now found even in the academic high schools.

The operation of a movie camera best can be explained by use of a still camera, with which most students are familiar. Lens openings, focal distances, color filters, are definitely tied up with the optics of physics, and film development ties up with chemistry. In many other ways the club program and activities can be integrated with the school program.

Good composition, the best scene lengths, camera angles, tempo, are intangible things and, although of tremendous importance, they cannot be mastered entirely by study or rule. Fortunately these will come as the

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Pierce C. Fellows

Analyzing continuity

PAUL D. HUGON

GIVEN any workable plot in written outline, the second step toward a complete movie is the continuity. The plot is the skeleton; the continuity is the flesh that animates the skeleton. It is as continuity writers that amateurs fall most noticeably short of professional standards. The reason is primarily that they are not quite clear, in their own minds, as to the relationship of writer to director, and of director to actor.

The object of the continuity is not only to arrange the main events in their proper sequence, but also to supply the minute details that build up the characters and the motivation. Actors are not to be told to "do something." They are not creating the story. It is up to the director to specify the "business" that they are supposed to put in, and it is from the written continuity that the director normally will expect to discover what that business should be, because the continuity writer is the one who has worked out, deliberately, the full consequences of all actions.

If this choice of details were left to actor or director, to be decided on the spur of the moment, as often as not, a false note would creep into the characterization or the motivation, and it would vitiate everything that follows. The actor makes the character live; the director makes the tempo realistic; but it is the continuity writer who makes the story psychologically sound. Details of action are his tools, and all the "business" that is to be enacted on the silent screen should first appear in black and white in the continuity, which is the step by step visualization of the plot. Here are the steps:

Warner Bros.

A discussion that shows fundamental basis of scenario

First, the people are clearly *identified*, and differentiated from one another by their appearance and their actions.

Second, their mutual *relationships* are made clear, also by their actions.

Third, their conflicting *purposes* are presented, not by a summary in words, but through action that will leave no doubt about them.

Fourth, every change in their *mental* attitudes (the progression of the plot through incidents) is indicated by some visible action, the characters being brought together *physically* without awkward lapses of time, in a series of sequences.

Last, they are led to a clear *choice* between the two visible courses of action that constitute the climactic dilemma.

Contrary to what is done in the novel or the short story, the action in a movie should be told habitually in chronological order. It is sometimes necessary, especially in mysteries, to return to a point in the past by means of cutbacks. This requires a great deal of skill, however—especially in silent pictures. In printed fiction, it is now the fashion to start with a point in the present and loop back into the past for its explanation:

"She had not always been so ready to agree with him as she was at this instant. When her mother had died, four years before, and she found herself alone in the world, she . . ."

Many of the best novels are written as a succession of such present points, each in turn explained by a return to the past (in the pluperfect tense: she had been; she had seen; she had told him, etc.). This method spotlights vividly the salient parts of the story, automatically subordinating the necessary antecedents and giving them the unobtrusive appearance of a soft focus background. Or, to use a different analogy, the long and uninteresting periods of incubation are summarized *after* the brief and climactic periods of hatching. But in the silent movies, the beginning and end of a long cutback are extremely difficult to carry out convincingly, and the method as a whole leaves much to be desired. The limitation is inherent in the medium. *The silent screen has no pluperfect.*

Since the motion picture is a succession of present events, the twin artistic processes of elimination on the one hand, and syncopation on the other, play a large part in continuity writing. A film which takes one hour in projection must contain material representing many hours, perhaps several years, of real life. This can be done only by selecting the salient periods of time, the climactic units, and jumping over the unnecessary links (elimination). Then we must bring together people and incidents in closer sequence than normally would happen in real life (syncopation). The dramatic smoothness of the finished picture depends in a major degree upon the successful use of this double process.

What shall we eliminate?

If we were to deal with the lifetime experiences of a person as the novel habitually does, we could show that person at seven years of age, at fifteen, at twenty two, at thirty five and so on. The natural climaxes of life—discovery of the world of people, the birth of sex, the birth of love, the birth of adult responsibility—give us simple categories which can be followed more or less mechanically. For many reasons, however, The film production of *Anthony Adverse,* illustrated on the opposite page, furnishes an extensive study in the eliminations that are necessary in preparing a story for the screen. The scenarist who undertook this heroic enterprise had to select salient periods of time, choose climactic units and jump over unnecessary links. The producer further had the problem of matching personalities across the years. *Now for Tomorrow,* a 16mm. sociological picture, made by the Harmon Motion Picture Foundation (movie maker: Kenneth F. Space, ACL), illustrated on this page, posed a similar problem on a smaller scale, for its raw material was drawn from a wide range of nursing and home relief experiences and conclusions. Unity and coherence were achieved only by elimination of insignificant action and by bringing people and incidents into much closer relationship than in real life.

Helen G. Harmon

this cannot be done on the screen. Matching personalities across the years, with different artists or by means of makeup, is seldom satisfactory. One can have David Copperfield the child (one period, one person) and David the man (another period, another person); but that is about the limit of practical duplication. An amateur movie should confine itself to a duration of time in which one person can be effectively changed by mere tricks of makeup and costume. This reduces the range of possible photoplays to a few years of elapsed time.

Elimination number one, therefore, that of all but a few years of life, leaves the writer almost without any means of showing satisfactory antecedents. Character delineation, in consequence, has to be much stronger, if it is to convey the total impression that the novel achieves by the slow accumulation of years.

Elimination number two disposes of the *insignificant* weeks, days or hours during which no visible progress takes place, while number three excludes the insignificant instrumentalities or chores, such as carrying letters, catching trains, sleep time and ordinary meal time. A subtitle or a fade out and fade in will cover those intervals that can be taken for granted, leaving the number of significant periods very small, perhaps twenty or thirty. Each of these constitutes a sequence.

Having eliminated all but the vital sequences, the continuity writer now syncopates within those sequences all the events which are necessary to character and plot development. In other words, he creates plausible coincidences. The dramatic coincidence is nothing but a syncopation. It should not be impossible or improbable in itself, although it might be unlikely with regard to *these* people at *this* time. Just as a so called "typical" drawing of a street scene will include at one time many types that can perhaps never actually be seen together in that street, although they all "belong" there, so a dramatic presentation will bring together in one place at one time people and circumstances that would otherwise require years to meet. The elimination of insignificant *periods* forces the dramatist to syncopate the significant *events.* The screen story, therefore, is seen not as a level plain but as a series of mountain peaks, each constituting a sequence.

Within each sequence, a good silent continuity is practically independent of words, spoken or printed. It makes use only of visual means; it bases no conclusion on sound, smell, temperature, or any of the other senses. And that is not easy. It explains why the "mystery murder chase play" lends itself so much better to amateur production than the play of pure emotion. First and last, the question before the continuity writer is, "Will this point be clear from the action itself?"

"These two men are brothers." How do we know it? "This man is the girl's guardian." How do we know it? "John is very fond of his wife." How is the difference between temporary passion and permanent affection to be made clear without words? We have become so dependent upon language, as a sort of shorthand of thought, that we do not realize how few of our actions are capable of one, and only one, interpretation, apart from words.

To take one simple example, and follow it right through, the plot outline reads as follows: "John is very fond of his wife." The amateur director may think this is sufficiently conveyed if he makes them kiss at nauseating length when the husband returns home as the wife is in the middle of cooking dinner. To the audience, however, that will mean simply "Honeymoon!" with the implication, "It won't last!" It is the continuity writer's duty to provide much more specific material. In continuity synopsis, the incident might run as follows:

"On his way home, John is tempted to buy himself a new necktie, but buys flowers for his wife instead."

That is infinitely better than a mere summarizing phrase, "fond of his wife." But it is not yet enough. The continuity writer, prior to the scene by scene plot layout, will make it read something like this:

"As other clerks begin to leave the office, John is seen, tired and weary, poring over his account books. He completes an entry, looks at the clock, and a smile spreads over his face. Time to go home. He puts away the books, walks out snappily. On his way home he passes a haberdasher's window and is tempted to buy himself a new necktie. He looks into his coin purse, hesitates, then catches sight of a flower vendor, purchases a bunch of carnations, with a happy look of anticipation."

Much more specific, and almost good enough for an experienced director, but still lacking in the details, which must specify *all* the people in *all*

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There's a camera in camp!

ORMAL I. SPRUNGMAN, ACL

How to record the camping group and get natural shots

A PERSON has to be a second Paul Bunyan, a first rate contortionist and somewhat of a sleuth to bring home a good camping movie. The Bunyanlike background is needed on the portages, the acrobatics are handy when seeking new camera angles, while the sleuthing is most essential when your camping pals are timid and refuse to be cinematically shot.

When my brother and I hit north on a canoe trip with new partners, we never make it known at the start that we're out principally after movies. If our friends like to fish, and we're heading into moose country too, we never cut into their fishing time or take them out of their way to camera hunt animals unless they have expressed a wish to paddle along with us. Quite often, when they see the fun of lying in wait, or rounding a point just in time to bump into a head ducking moose or deer, they are usually more than willing to forsake fishing in favor of filming.

Rarely do we ever go sleuthing for wild life while we are traveling across lake and portage in the direction of our night's camp. Such extra paddling is tiresome, especially for the non movie maker, and not only reduces traveling speed but also breaks up the morale of the party when its members are pretty well exhausted. We usually get into camp early and, after all chores are done, go out camera searching for wild life. When we return to our base, we then have the satisfaction of knowing that our tent is up, beds made and supper in the offing at the scratch of a match. Such a system makes camping more enjoyable for all concerned.

Perhaps the easiest time to snatch closeups of campers without their knowledge is when the trip first gets under way. At the start, the newcomer is much too interested in the surrounding landscape to pay much attention to the movie maker. Once the foundation of the film is successfully laid, the rest is comparatively easy.

Ordinarily, a natural born angler is too busy fighting an umpty pound whopper to bother with movie making maneuvers, and, when the fish is landed and the battle is over, no fisherman is so modest that he won't consider posing for a brief closeup with his catch.

It's the female of the species who really objects to being filmed. Large jackpines and other forest obstructions make handy hide behinds when the cine outfit comes into view. In such a case, use the same tactics as in hunting moose or deer. Build a blind. This can be set up conveniently near the wash stand or the breakfast table. The shots obtained usually will be better than any posed scenes and, once the campers discover that they are being shadowed, they become more willing to take an active part in the film itself. It is never advisable, however, to force an individual to participate in any movie record. We have found from experience that the audience is quick to detect such scenes and that the film really gains nothing from these shots.

Portages are long in the north country and packs are far from light. If we decide to film a short portage scene, we never ask party members to rehearse the shot. This is too tiring, especially when the portage is yet to be crossed. Usually my brother or I start across first, with the canoe and camera pack. Several minutes will elapse before the others shoulder their packs and fall in behind. This brief interval gives the movie maker sufficient time to launch the canoe, remove the camera from the pack and retrace his steps a hundred feet or so back on the trail to line up on the others coming down. A shot of the group at an angle, followed by closeups of muddy feet and sweat streaked faces (a lake soaked handkerchief placed beneath the fishing hat will furnish the desired effect), should be climaxed with a nicely framed shot through the trees, showing the "portagers" dropping their burdens and loading the canoes. If any extra effort must be expended on portage shots, the movie maker and not the party members should suffer the most.

It isn't always easy to stumble over a half dozen or more portages in a day, crossing as many lakes, and still find enough energy left to unleash the camera pack and steal a closeup of a fellow partner who skidded off a slippery rock and sat down in the lake, or of a porcupine gnawing the handle off a carelessly placed paddle. Yet such shots, taken when fatigue is the greatest, usually compensate you for the extra effort.

Before breakfast photography offers a good chance for candid closeups. One morning up in southern Ontario, while my brother was rustling wood for the fire, I set up the movie camera behind brush about a [Continued on page 403]

Robert Dudley Smith from R. I. Nesmith and Associates

Get ready for the portage first so you can film others

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Camera speeds ■ Half speed, or eight frames a second, often is convenient when the action in the scene is too slow to make a good picture or would require too much footage at sixteen speed for its completion. For example, a ship leaves the dock very slowly and, at regular speed, the action may seem to drag. It can be accelerated by shooting at half speed. Of course, allowance for the increase in exposure must be made by closing the lens down one full stop. At the same time, a tripod is almost a necessity, for eight frames a second doubles the effect of camera movement. On the other hand, thirty two frames, or an even higher speed, works to an advantage by allowing more footage of short, fast action. A dive, for instance, is over very quickly on the screen. A speed of thirty two frames will double the length of the action, yet it will not produce a great effect of slow motion. In the case of thirty two frame speed, one must open the diaphragm a full stop.

Patches of color ■ The fact that Kodachrome has less latitude than black and white film means that it cannot record very dark subjects and very light subjects in the same picture with satisfactory exposure for both. Thus, if one were to film the scene in the illustration, where there are patches of light and of heavy shade, he would have to make up his mind which would be the most important part of the scene—the figures which are brightly lighted or the areas of heavy shade. Of course, in this case, the figures probably would be featured and the rest of the scene would have to be rather dark. The color inevitably would be muddy and poor in the dark area. It is for this general reason that flat lighting is always urged for color filming. Careful planning and consideration of the direction of light usually will enable the movie maker to get such lighting on nearly any type of subject.

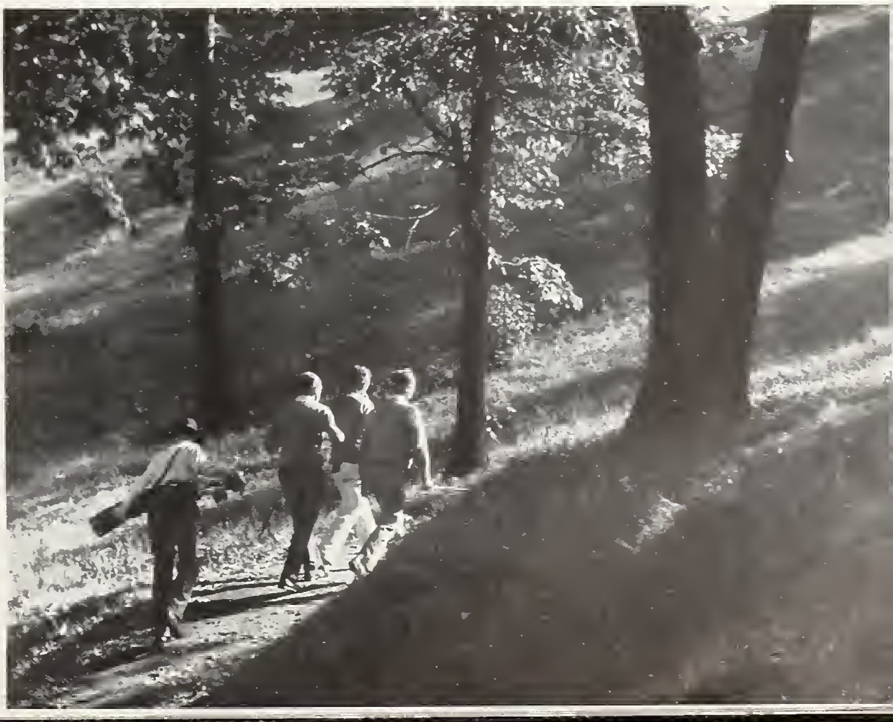
Title wipes ■ One of my best cine effects is a simple trick that simulates the "turn over" wipe which has been so popular on the theatrical screen and which is very useful in introducing a series of titles such as those following a main title. The device, which may be built easily, consists of a wooden yoke carrying a board of the proper title size, which is pivoted through its center, either horizontally or vertically, so that it will revolve through a hundred and eighty degrees. In case only two titles are to be used in a series, they are fastened to opposite sides of the board so that each will be right side up when facing the camera. After one title has been exposed, the board is flipped over, bringing the next one into view. My board was made to hinge horizontally, and the dimensions are such that I have a margin on the side to allow space for thumb tacks and to manipulate the board.—*E. P. Burch, ACL.*

Cinching ■ The most common cause of damaged film is the friction between two or more layers on a reel, which occurs when the end of the film is pulled, causing it to coil more tightly. Film that is wound loosely on a reel should never be tightened by holding the reel and pulling the end of the film strip, for the result is almost sure to be thousands of tiny scratches. While rewinding, a slight pressure on the supply reel will keep the coils snug and firm. Loosely wound reels should not be stored on edge for any length of time, for it will cause the film to form rather uneven loops when it is unwound for projection. The result may be that the film weaves in and out of focus.

Lens caps ■ The habit of keeping a rubber cap over the lens when it is not in use serves to prevent a certain amount of dust from settling on the glass. If the movie maker is unfortunate enough to leave the cap on while filming, he will have nothing but a fine strip of opaque film suitable for a leader. It is often difficult to remember to remove the caps from all lenses, and one of the best stunts of the year is to fasten the caps to the carrying case by a short length of string. With this safeguard in operation, it is impossible to take the camera from the case with the lens caps on.

Projector speed ■ The inexperienced movie maker sometimes runs his projector either faster or slower than sixteen frames a second, which is the correct rate. An easy test for correct speed can be performed by slowing the machine down until [Continued on page 402]

Leo J. Heffernan, ACL



Expose for shadows or highlights in this color scene

Projecting sound films

L. T. SACHTLEBEN

Difficulties met and simple ways to eliminate them

THE sound movie is an improvement over the silent movie. I say this without fear of refutation (in spite of the fact that talkies have been derogatorily dubbed "the squawkies"), for sound films offer us illusion or vicarious experience through two mediums of sense in place of one. They extend our appreciation of the subject dealt with, just as the appreciation of a man with both hearing and sight is extended beyond that of a man with sight only.

Addition of sound to the picture is accomplished at the expense of complicating the projection equipment by adding a suitable mechanism for sound reproduction. This inevitably places additional operating and maintenance responsibilities upon the projectionist. Nowadays, the user of a 16mm. projector is familiar with the mechanism, operating characteristics and maintenance routine of a silent machine, and some day he will think nothing of including knowledge of the sound equipment and its care in his fund of necessary information.

The most important single piece of advice that can be offered on the subject of good sound projection is *read your instruction book!* The instruction book has been written by serious minded men who are sincerely interested in helping you get the best possible results from your sound projector and it provides you with information that your experience, your intuition, your dealer or MOVIE MAKERS articles will not give you. It gives you the inside story of your sound projector. Only a psychologist can explain why ninety nine people out of a hundred treat the instruction book as a scrap of paper, to be consulted only when something breaks or burns out, as a result of the trial and error operation of an expensive, delicate and carefully designed and adjusted piece of equipment.

Aside from the quality of the subject matter of the film, the success of a sound film presentation is influenced by three factors: the technical quality of the film; the design and condition of adjustment of the sound reproducing mechanism, including the optical system, amplifier and loud speaker; the acoustic properties of the room in which the show is presented.

Generally speaking, little can be done in sound projection to compensate for defects in the quality of the sound track on the film, but there are a few tricks which will help to make some of the more frequently occurring defects less obtrusive. A list of all these defects would be too long to give here, and so only the more easily recognizable ones will be discussed.

One of the most offensive sound track defects is commonly known as the "wow". Technically, a "wow" in a sound track is a variation. on the film. in the wave length of the harmonic components of the recorded wave, all wave lengths being elongated or shortened by the same factor or percentage. While the average wave length does not change, its instantaneous or momentary value drifts back and forth above and below it, and the "wow" is called "fast" or "slow", depending on whether the cycle occupies a short or long time. A "wow" is recognized by the ear of the listener as a partial and recurrent sharping and flatting of the key of the sound. Generally speaking, "wows" may occur at any rate or frequency. Very slow "wows" are sometimes simply known as a "drift", and the more rapid ones as a "gurgle" or "flutter", in the pitch of the sound. The terminology of the "science of wows" is vague and not yet well established in the sound recording industry and has local variations in term and significance from group to group. The word "wow" itself is peculiar in that it is an onomatopoeia, which does not very effectively suggest to the average listener the effect of which it is the name. This has arisen from the fact that the effect was named by engineers who studied the performance of sound recording and reproducing equipment by the employment of single tones of constant frequency, under which condition the effect sounds much like the word "wow" when spoken or sung repeatedly.

While "wows" produce distortion in all reproduced sound, of whatever nature, the distortion is not always equally noticeable or equally objectionable to the ear. Speech recordings are less noticeably affected by "wows" than any other, probably because we listen to speech not for its tone or pitch quality, but for those qualities which convey meaning and emotion, such as articulation, rate of speech, loudness and softness, accent and word order. A quaver in the voice indicates fear and excitement, and rapid "wows" sometimes convey the impression that the speaker is suffering fright. On the other hand, song and music are largely tonal in nature and convey their emotional effect primarily by means of tones, modified by the many devices characteristic of the art of singing or playing an instrument. Each musical instrument possesses a characteristic tone quality and, depending upon this tone quality, is more or less noticeably distorted by "wows." The piano, with its sustained, singing, slowly diminishing tones, is probably the most noticeably distorted by cyclical variations in pitch or "wow." Fairly slow "wows" give the piano a wailing quality and more rapid "wows" make it sound like a guitar, things no respectable piano ever does. The music of instruments which produce rapidly modulated tones is not so noticeably affected. Slow music is more distorted than fast music by the presence of "wows", and it is sometimes thought that the more flagrant examples of jazz are actually improved by their presence.

There is no known remedy for recorded "wows" other than to discard the defective record and obtain a perfect one.

Sound records may have a preponderance of bass tones, or of treble tones, and some correction of this condition may be obtained by adjusting the tone control with which most projectors now are provided. If the record is distorted by reason of the presence of spurious harmonics of the recorded tones, some improvement often can be had by reducing the high frequencies by means of the tone control, although at best this is a compromise and results in improvement rather than correction. Frequently, film records of apparently poor quality can be reproduced with considerable success by keeping the volume control turned low. The peculiar properties of the human ear make overabundant low frequencies and overabundant high frequencies less obtrusive when heard at low amplitudes than when heard at high amplitudes or volumes. By judiciously controlling the volume, the obtrusiveness of harmonic distortion can be reduced, and also noisy or "hissy" films can be improved.

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Kodachrome for "stills"

RUSSELL C. HOLSLAG, ACL

How to employ new color medium for happiest results

WE MOVIE makers have come to pride ourselves on our knowledge of that essential quality of the motion picture which we call *cinematics*, that term for life giving *movement* which connotes the opposite of that which is static. Thus, cinematic quality means motion—in time, in space, in ideas and in effects, and these give the motion picture its creative fascination. But there is hardly one of us who does not realize the advantages of the still picture, too. We study single frames in our editing devices and we find that many of them have the qualities of well composed and pleasing static pictures.

Especially is this true since the coming of color. Kodachrome, because it is easy to take and is universal in application, has added immeasurably to the qualities of motion and, by the same token, it has entranced us by its beauty in single frames. Now, Kodachrome (the same process that is used in movie making) is available for several makes of miniature still cameras, and still photographers, as well as movie makers, will have the advantage of this remarkable process. It follows that the movie maker has "the jump" on the whole photographic fraternity, for he is familiar with the Kodachrome process and its exposure and capacities. He is accustomed to the necessity of getting the picture accurately exposed on the film as it will appear, without the opportunity of correction, manipulation in development and printing and trimming. Still filming in Kodachrome is remarkably close to movie making in Kodachrome, and there is no reason why movie makers should not excel in both arts.

There is another comparison between the movie and the new still Kodachrome picture that is especially striking. It is a transparency and is most effective when *projected.* The movie maker's experience well fits him for judging and producing pictures which are to be *screened.*

Loading the miniature camera with Kodachrome presents no new problem. The film comes in the form of the familiar daylight loading charger with trimmed, protruding end, which is loaded in the usual way. Make sure that the beginning end of the film is given a good bight on the takeup spool. Eighteen exposures are provided in the K135 (35mm.) roll. As the emulsion is fast, the same care should be taken as to loading in subdued light that is used in handling and loading Super X or other fast film. When the number of exposures is complete, this film should be wound back into the charger before sending it to the manufacturer for processing and return.

Making "stills" with Kodachome in roll film form fits right in with the movie maker's Kodachrome exposure experiences. In making "stills," however, the first important difference lies in the greater latitude offered in *timing* the picture. In the movie, if we shoot at normal speed, our exposure is about a thirtieth of a second. In the still camera, the shutter speeds which are accepted generally for average "snaps" are one twenty fifth and one fiftieth of a second. Which of these is best to choose for color? Obviously, one gives twice the exposure time of the other, so that, with one fiftieth, we must open the lens one stop over the one we would use for one twenty fifth. This is simply a matter of mathematics, but the main point is that one fiftieth of a second is better for making sharp pictures of subjects which are in moderate motion, such as of people walking. If you are a little bit shaky in your camera hold, one fiftieth would be the safer speed, too, for average subjects. In color shooting especially, it is best to control every condition which will tend to make the picture *sharp.* The color image is more lifelike by its very quality and will be still further enhanced by good definition.

Of course, in order to "stop" really rapid motion, and so produce good color definition, we should use even faster speeds. A lively tennis game, a trotting horse, a golf swing and other fast sports are photographed advantageously at a shutter speed of a hundredth of a second. But remember, a hundredth is four times as fast as a twenty fifth, and so the lens must be opened up *two* stops to compensate. Kodachrome is not so fast as some of the black and white emulsions to which we have become accustomed, so we remember to choose bright, sunny spots for Kodachrome pictures of sport events.

Without going into the philosophy of recording motion by means of "stills," we may say that there is a certain knack in making the sharpest pictures of motion in color. Almost every motion is rhythmical; the tennis player springs up to connect with the oncoming ball, hesitates for a split second in mid air, then drops. The maker of "stills" watches for and snaps his shutter at that summit of comparative rest; it is at this time that the motion is usually most graceful and characteristic.

While on the subject of the production of sharp "stills" for later projection, it is an axiom in this work, as well as in movies, that, all other conditions being suitable, the best shots are those taken from a tripod. To stem the incipient waves of protest from miniature camera owners who snap away industriously at candid shots without anything so formal as a setup, we may say that many of these shots would be impossible if "time out" had to be declared to set up the tripod. Nevertheless, if a still color picture is to be projected on the screen in large size, it deserves every aid that good picture making technique can give.

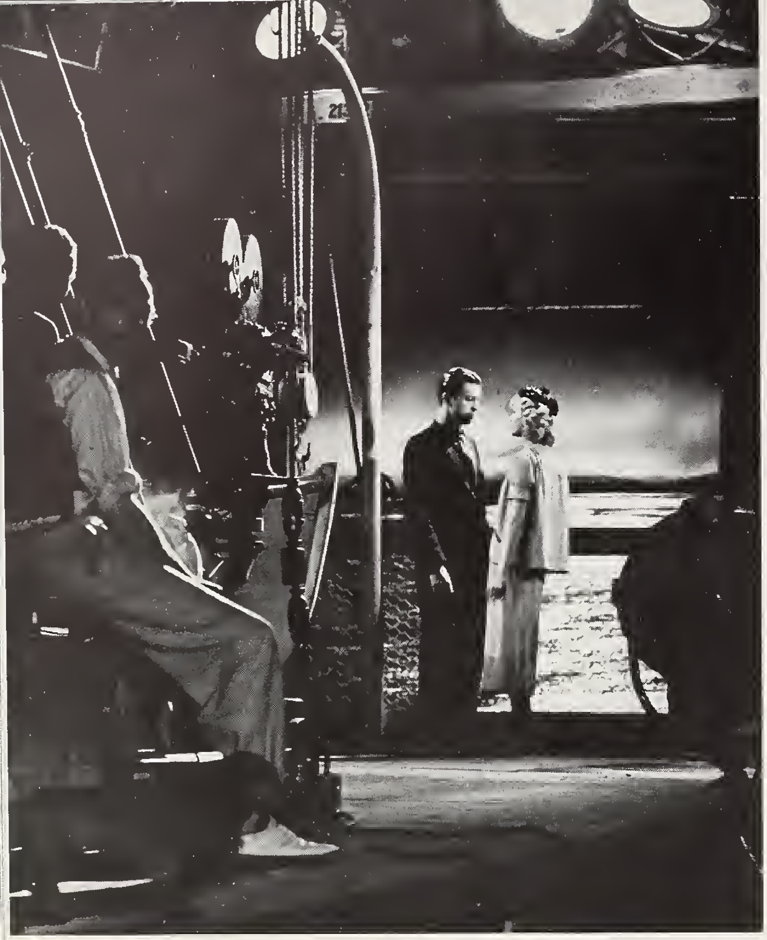
The exposure table furnished by the manufacturer is very carefully worked out and complete, and the best results will be had by reading these notes (furnished with each roll) with the utmost care. For a general discussion of Kodachrome, judging light and dark subjects, etc., read the article, *Kodachrome is faster*, on page 379 of this number of MOVIE MAKERS. Remember, however, that all specific diaphragm openings given in that article are based on movie making which implies a shutter speed of one thirtieth of a second.

With still Kodachrome, we find, for instance, that a light colored subject may be taken in bright sunlight at *f*/8, using a shutter speed of a fiftieth, whereas, in thinly veiled sunlight, this subject would be shot at *f*/5.6, using the same speed. On a bright day, but not in direct sunlight, this subject would be exposed at *f*/4.5. Or, if we wished, for any reason, to vary our shutter timing to a twenty fifth, we could close down one stop under these readings at the same conditions. Convenient tables for altering the stops with relation to shutter speeds in still cameras are available from any photographic supply house.

We need not go over the entire exposure range here, as it is only necessary to note that the basic exposure of the roll film Kodachrome is approximately, if not identically, the same as that of the latest movie Kodachrome. Of course, the still camera allows for more flexible control of this exposure in shutter timing. To make sure of correct exposure, see that your shutter operates correctly as to its speeds. The diaphragm almost never gets out of adjustment, but the shutter may.

It must be remembered that, early or late in the day, the exposure must be increased. Also, at these times, because of the angle at which the sun penetrates the earth's atmosphere, the light will change in color value, so that objects will be recorded with changed renditions

[Continued on page 400]



W. J. Jordan

A set ready for a rear projection shot. The picture on the screen is thrown by a projector behind the screen, and the camera combines the projected image with the actors and the set in the foreground. George Teague is at the camera.

Rear projection

EARL THEISEN

THE perfection of the rear projection process has simplified the problem of adding atmospheric backgrounds, such as foreign locales or other natural scenery, without leaving the studio sound stages. Traveling shots of autos, airplanes and general process shots are filmed on the sound stages without the necessity of sending a film company, with actors and crew, to a location to get these occasional atmosphere scenes.

Film libraries, both privately owned and those operated by the studios, supply shots of famous buildings, streets, water fronts, skylines and scenery from all over the world. When a scene is needed for narrative purposes or to lend authenticity to a film sequence, the director selects the suitable scene from the stock shots in the film library, according to the requirements of the film story. If suitable stock shots are not available, then a cameraman is sent to the location to get the desired scenes. By sending only the cameraman and an assistant, rather than a whole company, much valuable time and expense are saved in production costs. The studios regularly send cameramen to various places with the sole purpose of getting stock shots. Very often, expeditions bring back suitable background film. In the film libraries, there are many reels of unusual scenery and shots of wrecks. Often, the same building or street is photographed from various angles and with differing lighting effects in order to make available suitable atmospheric material for process shots.

While it has been possible to do these process shots for a number of years by the traveling matte, the Williams Process, the Dunning Transparency and others, the rear projection method now is used widely because it is capable of better results and is easier to manipulate. By this method, it is possible to add atmosphere backgrounds so that they match, with more fidelity, the photographic quality of the rest of the sequence.

Stripped of the mechanical details, the process consists of placing the actors in front of a screen, on which is projected a movie of the desired scene, and then both the picture and the actors are photographed with a motion picture camera. With a proper balance between the screen brightness of the projected movie and the lighting on the actors, the actors seem to be introduced into the background picture on the screen.

In rear projection shots where the actors are sitting in a moving car, plane or other conveyance, the illusion of motion is produced by the action in the picture on the screen. In other words, in reality the vehicle is motionless, while the effect of the movement of the vehicle is supplied by the movie in the background. The illusion of movement is relative.

Usually, in making such shots, the conveyance is anchored on a platform known in the studios as a "parallel." The parallel is placed directly in front of the screen at the proper distance, according to the effect of distance that is required between the foreground and the atmosphere background. When the scene is filmed, the vehicle remains stationary except for a rocking or jiggling movement that is given to it by assistants, to simulate the effect of movement that is shown in the background motion picture on the screen. The motion picture camera, which does the film of the complete scene, is set up at the desired angle and distance from the foreground.

If there is an improper balance between the lighting of the actors and the projected picture, the process shot is obvious and "fakey." The illumination on the actors or foreground portion of the scene must be in accordance with the light contrasts, direction of shadows and the "key" of the background, if the two component parts of the shot are successfully to present a unified whole. Too much light on the actors, or too much back light, gives the effect of their being pasted on the background. If the background has been photographed with an overall of greyness, then the foreground is illuminated so as to match.

Of equal importance is the angle at which such process shots are filmed. The angles and perspective of the foreground are made to correspond to those of the background. A correct lighting balance lends to the beauty and photographic quality and the proper relation of the angles prevents an unnatural, incongruous effect.

If, in a film story for example, a traveling auto shot were needed in which a car containing actors was to be shown progressing down a certain street, a suitable background film first would be chosen according to the specific requirements of the story. Since the movie on the screen controls the effect of speed at which the auto is traveling, a background shot that had been photographed from a car going sixty miles an hour could not be used for giving the effect of a speed of twenty miles an hour. If the background movie indicates a speed of sixty miles an hour, the auto introduced into the scene by projection also presents the illusion of a speed of sixty miles.

At the same time, a background film that has been photographed from a low slung car could not be used, for example, for a truck or other car that is high from the ground. The rear projection shot is always photographed from the same angle at which the background film was made. If this were not done, the actors or foreground image would have a conflicting perspective in which the foreground

[Continued on page 404]

Hollywood brings mountains to cine prophets at will

Movies aid labor

RALPH M. BARNES, Ph. D., ACL

AMERICAN industries are rapidly installing methods that reduce the fatigue and improve the effectiveness of workers and, because of this, there is an increasing demand for men trained in time and motion study. Colleges and universities, in increasing numbers, are offering courses in this field.

Time and motion study may be defined as the analysis of the methods, materials, tools and equipment used in the performance of a piece of work; the development of the most economical way of doing this work; the standardization of these methods, materials, tools and equipment; and the accurate determination of the time required by an average operator to do it.

Chronologically, motion study occupies first place in time study work. It is the purpose of motion study to analyze the task from the point of view of the worker, studying each of his movements with the idea of eliminating all those that are unnecessary and finding the proper sequence of the motions necessary to the proper performance of the work. Some people believe that motion study is used to force the industrial worker to "speed up"—to work harder—but actually this is not the case. It is the primary purpose of motion study to make the work easier—to take the unnecessary and "back breaking" elements out of the job. In finding this easier and better method of doing work, it may be that the worker's output will increase, but that is an indirect result.

The human hand is capable of moving very rapidly. For example, a worker inspecting pearl buttons moves so rapidly that she may make a complete motion in less than one ten thousandth of a minute. The cashier counting coins moves faster than the human eye can follow. Since the motions used in doing work are ordinarily made at a rapid rate and the time for making the motion is extremely short, the motion picture camera is commonly used as a means of recording motions and indicating time required for making the motions.

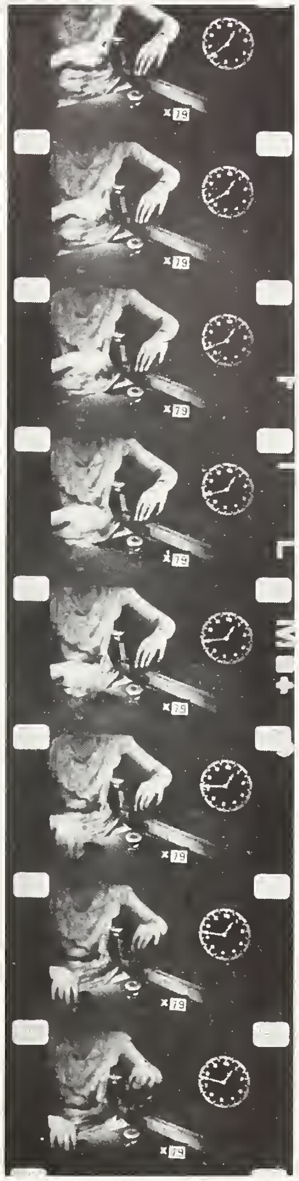
From the analysis of the movements of the various members of the human body performing many different kinds of work, it has been found that all motions may be divided into eighteen different, fairly well defined classes. There is a well developed technique in this field, with names and symbols for each of the eighteen fundamental motions (called therbligs) which the human body can make. These form a basis for studying manual work of all kinds.

You will, no doubt, agree that it is desirable to make work as easy and as satisfying as possible but, in a competitive society such as ours in this country, only those things which are economical in the long run will be adopted by industry. The point has been emphasized that the application of motion economy principles results in reduced fatigue and improved labor effectiveness, but thus far nothing has been said about the dollar and cents savings to the employer using these methods. Motion study pays big dividends from all angles. For example, a large electrical manufacturing company saved, at one plant alone, over fifty thousand dollars in one year through the use of motion study, and the total outlay for tools and fixtures was less than twenty seven hundred dollars.

L. P. Persing, in charge of this work at the Fort Wayne plant of the General Electric Company, states that on all the work on which they have applied the motion economy principles they made an *average* saving of over *forty percent*. He also emphasizes the point that the workers are enthusiastic about the new method, since, in every case, it has meant that they do the work in the very easiest way. He states that, even though the employees using the improved methods actually produce more pieces a day, they are less fatigued than formerly.

Industry has come to realize that it is just as important to design and build the machine to facilitate and accommodate the person who is to operate it as it is to build it to perform specific mechanical functions. Because of this, industry is employing men with a viewpoint and a technique that will enable them to interpret design problems and production problems from the standpoint of the operator. This fitting of machine to the worker, with the resultant reduction in fatigue and the improvement of labor effectiveness, is something that college trained men are taking up with much enthusiasm. Because of the growing demand for men with such a course of training, there is an increasing number of colleges and universities in this country offering such work to their undergraduate and graduate engineering students. Since the University of Iowa was among the first schools in the United States to inaugurate such training, our program may be of interest.

The undergraduate work in time and motion study at the University of Iowa is presented in two courses, both of which are elective. In the first course, two semester hours are devoted to stop watch time study, motion study and micromotion study work. This course is given during the first semester. It is followed by a second two semester hour course in which further practice is given in the micromotion study technique accompanied by investigations and studies of hand mo- [Continued on page 401]

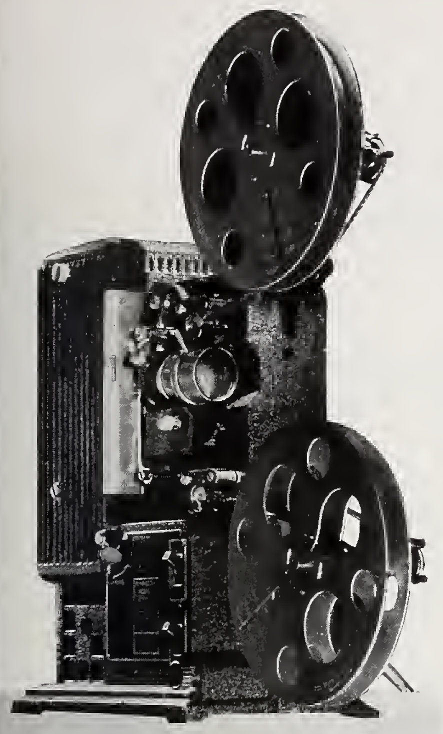


Ralph M. Barnes, ACL

Below, making a time and motion study on 16mm. film. Note the clock with the large dial included in the scene. Above is an enlargement of a film strip from a 16mm. picture which will enable students to analyze movements in relation to time.

Ralph M. Barnes, ACL

Buy a Better Projector



KODASCOPE MODEL L

versatile

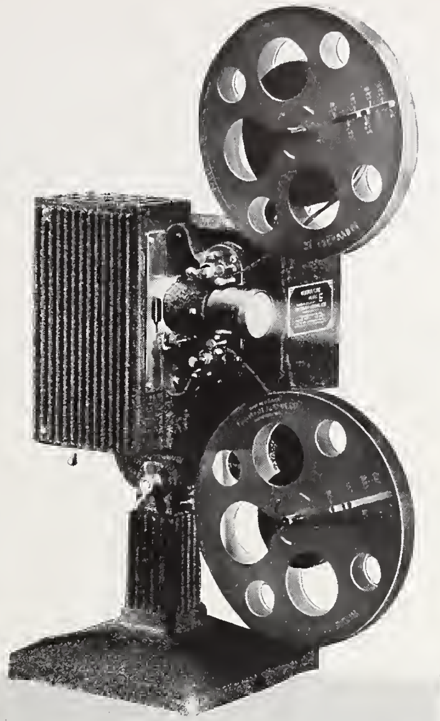
"tailor-made projection"

THE "L" represents an extremely important idea in home movie showings—projection "tailor-made" to individual projection conditions. The "L" recognizes the simple fact that your projection requirements may be totally unlike those of other movie makers—the size of the room in which you show your films...the size of the screen you use. Hence, its choice of 1-, 2-, 3-, and 4-inch projection lenses for "throws" of varying angles; and 400-, 500-, and 750-watt lamps for the correct amount of illumination for any screen up to 10 feet in width and at distances ranging from 9 to 74 feet.

many conveniences

IMPORTANT operating controls are concentrated on a single panel. Lamp and optical condenser are mounted in a scientifically correct cooling jacket which is attached to a hinged panel for instant, easy inspection. By a plug receptacle and single switch control the "L" automatically turns on a floor or table lamp when the Kodascope lamp is turned off—and vice versa. Framing, focusing, and tilting controls are conveniently located. The "L," of course, offers reverse projection and a "still" picture attachment. It rewinds 400 feet of film by motor in less than 30 seconds under finger-tip brake control.

Though obviously the finest 16 mm. projector, the price of the "L" is markedly modest: $165—your choice of lens and lamp, extra.



KODASCOPE MODEL E

economical

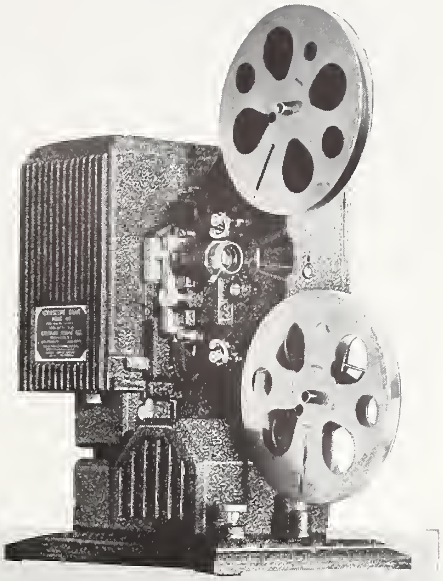
priced very low

THE Model E is unquestionably the outstanding projector value in the 16 mm. field. It not only takes 400-, 500-, or 750-watt lamps, but may be obtained with any of five projection lenses. And its price—not including lens and lamp—is but $39.50.

Its up-to-the-minute design is immediately apparent. It is extremely cool and quiet in operation—cool, because of its powerful fan and efficient cooling system; quiet, because its six major bearings are pre-lubricated. The base of the "E" is designed for projection from carrying case top, thus eliminating the need for projection stand or table. Its 30° tilting device permits you to direct the projection throw upwards or downwards to a screen on floor, table, or mantel. The "E" has a new design fixed-center framing device—once you've centered the image on the screen you need not again re-tilt the projector to correct framing. And the "E," of course, offers fast motor rewind of film and variable speed control.

much for little

BUT there is only one fair test for movie equipment. See the "E." Operate it. Check the brilliance and crispness of the screen results with those of your present projector. And remember that this quality projector can be yours for only $54.50, including 2-inch *f.*2.5 lens and 400-watt lamp—a combination supplying ample illumination for average home shows.



KODASCOPE EIGHT "80"

brilliant

larger screen pictures

LARGER, brighter screen pictures from maximum illumination—that is what the efficient optical system of Kodascope Eight, Model 80, produces from its 300-watt lamp. For it's the amount of light that reaches the screen that counts—not the amount in the lamphouse. The "fast" *f.*1.6 projection lens of the Model 80 makes the most of every watt of its standard 300-watt coil-coil lamp. A 300-watt bi-plane filament lamp, available as an accessory, offers still greater brilliance.

The "80" is scientifically designed, sturdily constructed. In operation it merely purrs. Its powerful fan keeps it cool to the touch. A de luxe projector on every count, it enables your "Eight" movies to put their best foot forward. Price, with sturdy carrying case, $97.50.

KODASCOPES

•

Eastman-built
for fine and faithful
performance

•

EASTMAN KODAK COMPANY
ROCHESTER, N. Y.

News of the industry

RUSSELL C. HOLSLAG, ACL

Kodachrome for "stills" ■ Movie amateurs will now share Kodachrome with many miniature camera enthusiasts, for the beautiful results of which the process is capable now have been made available in two roll film sizes. These are the K828 (8 exposure), made especially for use in the new Kodak Bantam Special with an *f*/2 lens, and the K135 (18 exposure) for Kodak Retina and other cameras which use 35mm. perforated film for making double frame "stills." The full color transparencies which result can be viewed either in original size by transmitted light or by projection on a screen as slide film. It is recommended that the transparencies be mounted in a two by two inch glass slide for projection. For hand viewing, they may also be mounted and framed in a special card. It is also announced that a series of still projectors for screening the new Kodachrome soon is to be placed on the market by the Eastman Kodak Company, Rochester, N. Y., the manufacturer of Kodachrome.

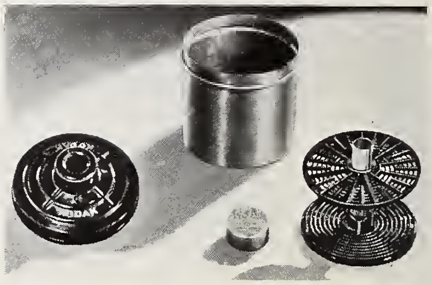
Edafilm ■ The Eno Edafilm, a self contained system for substandard film editing, has been announced by Ralph R. Eno, ACL, 545 Fifth Avenue, New York City. It is a well made carrying case, handsomely covered in leatherette and provided with clasps, lock and key. Two main compartments for holding film are provided; these are hinged together but may be detached and used separately if desired. The two compartments contain eighty small boxes for holding individual rolls of film. Each box is provided with a means for quick identification and the entire system is indexed by means of scene identification blanks, of which six pads are provided with the outfit. There is also a flexible rubber hub which will fit the shaft of any rewind unit and which makes it easy to wind off short scenes from a large reel of film.

The Baldaxette, new still camera sold by Willoughbys

Dufay-Wonderlite ■ A new, high power photographic lamp has been developed for the express purpose of taking fully corrected color pictures by artificial light on Dufaycolor film. These lamps are made of a specially prepared filter glass, which gives the correct spectral emission for use with this color process and is effective for movies or "stills." Spectroscopic tests made at the Dufaycolor laboratory reveal the fact that the color rendition given by the light of this lamp will remain constant throughout its burning life, which averages five hours, it is claimed. The use of these lamps, of course, does away with the necessity for the use of a filter on Dufaycolor interior shooting. The manufacturer is the Wonderlite Company, West Orange, N. J.

Baldaxette ■ A new, cleverly designed, compact and many featured still camera recently has been introduced with the appearance of the Baldaxette, the United States representatives for which are the Photo Marketing Corporation, who have awarded the representation for this item to Willoughbys, 110 West 32nd Street, New York, N. Y. This efficient instrument has a high percentage of the features desired in a modern still camera. With it may be used 2¼ x 2¼ or 2¼ x 3¼ roll film; on the latter size may be secured either eleven or twelve 2¼ x 2¼ exposures, depending on whether they are counted by the special ratchet film advancing mechanism or by the window method: its lens is a Hugo Meyer Trioplan, *f*/2.9, 7.5 cm.; its finder has an automatic parallax corrector operating with the helical lens focusing device; in addition, it has a built in, coupled range finder of the military type; its exposures are made with a Compur shutter with extreme speed of 250.

New B & H catalog ■ For the very latest in accessories for 16mm. and 8mm. cameras and projectors, those interested should investigate the new catalog, *Accessories for the Bell & Howell Filmo*, which recently has been issued. The book lists all the time tried accessories and, in addition, features many new ones. It is lavishly illustrated, and the uses to which each accessory may be put, as an aid to better movie making, are described. An outstanding feature is the appearance of a new film splicer, together with a new line of unit film editing equipment. Five hundred or more separate accessories are listed, which makes this book a handy source of reference. Copies will be sent without charge upon application to Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Ill.



Kodak Adjustable Film Tank for developing roll film

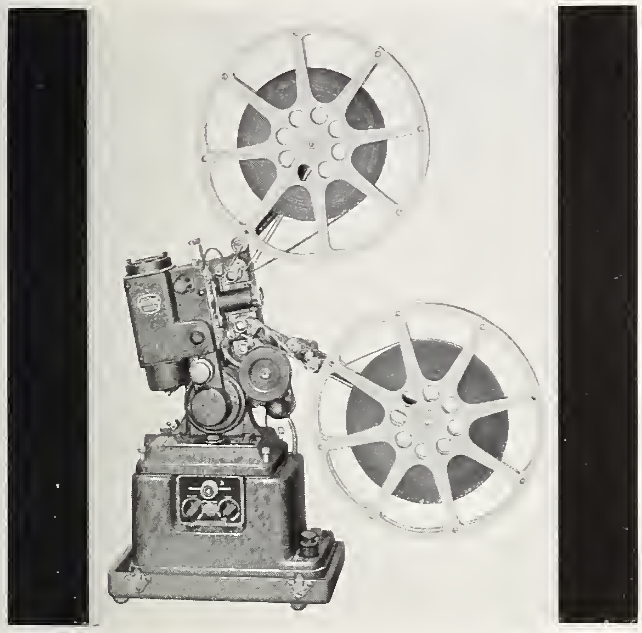
Willo Bargain List ■ Described as a comprehensive list of "new, shopworn and used cameras, lenses and accessories at money saving prices," the new Willoughby Bargain List, No. 836, now can be obtained by addressing this well known firm at 110 West 32nd Street, New York. Many cine items are included.

Haile supplies RCA motor ■ An attachment whereby any RCA 16mm. sound on film camera may be converted to a continuous motor drive has been announced by J. C. Haile & Sons, 215 Walnut Street, Cincinnati, Ohio. The accessory consists of a 1/150 h.p. Bodine motor of standard design, mounted on a substantial base for attachment to the camera and provided with suitable

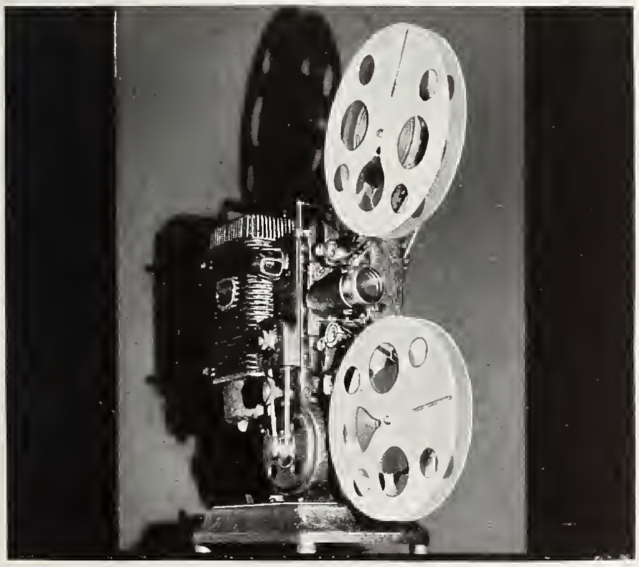
[Continued on page 404]

Answers the query "What's new?" for amateur and dealer

Specialists in Quality 16 mm. Projectors!



New AMPRO 16mm. Sound-on-Film incorporating many basic improvements. Provides professional performance, easier portability —and priced at only $375. Projector weighs only 39 lbs. Speaker 15 lbs. Projector—20½" long, 13½" high, 8" wide. Speaker 12" long, 13½" high, 8" wide. Accommodates any size reel up to 1600 feet.



AMPRO offers two fields of 16mm. Motion Picture Projectors. Series J with 500 Watt lamp start at $135.00. Series K with 750 Watt lamp start at $150.00. Prices include carrying case and all accessories.

BOTH SILENT AND SOUND-ON-FILM

The superiority of AMPRO both in 16mm. Silent and Sound-on-Film is evidenced by the thousands of schools who have given preference to AMPRO. The school field is the proving ground for projector performance and the popularity of AMPRO in that field is the best testimony of its point for point superiority.

Choose the Sound-on-Film Projector which has All these Features . . .

1. Undistorted Sound. It's hard to believe that such an inexpensive, compact, lightweight machine, as this new AMPRO, can project with all the brilliance, clarity and rich tone of theatrical equipment. But it's a fact!

2. Brilliant illumination. Direct type, affording greater screen brilliance through the use of a new Split-Phase Rotary Shutter and Dual-Convex Condensers. This exclusive AMPRO development provides maximum illumination in sixteen millimeter projectors.

3. Light Weight Portability: Two small lightweight carrying cases house the entire AMPRO sound unit . . . small and light enough in weight so that both units may easily be carried by one person.

4. Simplicity of operation: The Amprosounds have been especially designed so that anyone can easily operate them under diversified conditions. Threading is simplified by the use of guides so that the film finds its proper position almost automatically. No longer need you worry about the type of current . . . no converters are required. If the current is 100-125 volts, regardless of whether it is D.C. or A.C. or any cycles, just plug in.

5. No wear on Films: All parts which come in contact with film are designed so that no part of the picture or the sound track can be scratched. Side tension on the sound track side and pressure pad tension on the sprocket side of the film assure smooth movement and steady projection. A triple claw is used for moving film engaging three sprocket holes simultaneously. In this way, film with two adjacent torn sprocket holes can be successfully used. To prevent wear on film the AMPRO patented "kick back" movement lifts the claws from the sprocket holes before withdrawing, eliminating wear on the holes. A take-up compensator prevents starting strain on film.

6. Rewind: A full 60-minute picture rewound in forty seconds, automatically.

7. Accessibility: Projector can easily be separated from amplifier without tools by removing four knurled screws. When projector is removed from amplifier, all connections are automatically severed so that amplifier can be handled safely with no danger of shock. Amplifier tubes most likely to require replacement, are easily removed without taking off projector from amplifier.

8. Provision for Microphone and Phonograph: A socket is provided in the operating panel to permit the use of a microphone. This socket can also be used to plug in an electrical pick-up for playing phonograph records.

9. Quiet operation: No clickety clack, no heavy hum, no grinding noises mar your show with AMPRO.

10. Cooling System: Ventilation through lamp housing by means of specially designed venturi cooling chamber, which keeps projector cool under all conditions.

11. Designed to comply with Underwriter's Laboratories specifications —Licensed under Western Electric Patents.

Visit your dealer and ask for a comparative test for performance and value. You will find that point for point the AMPRO will lead. Check for Illumination, Clarity of Sound, for Quietness, for Ease of Operation, for Freedom of Wear and Tear on Film, for Ruggedness and for Pleasing Appearance. On the basis of these comparisons your choice will be AMPRO.

The
AMPRO
CORPORATION
2839-51 NORTH WESTERN AVENUE
CHICAGO

KIN-O-LUX

16mm. Reversal Film

No. 1

The deservedly popular film in the familiar green box gains new adherents daily. Intended for Outdoor use only, it performs quite as well as films selling at several times its price. For Outdoor Movies of Distinction, use Kin-O-Lux No. 1.

100 ft. __**$3.00** 50 ft. __**$2.00**

No. 2

The film in the red box is somewhat faster than Kin-O-Lux No. 1, just a little more expensive and enjoys an unbroken record of high performance. Use Kin-O-Lux No. 2 for your all-round requirements.

100 ft. __**$3.50** 50 ft. __**$2.50**

No. 3

The film in the lavender box and the most recent addition to the Kin-O-Lux family is not merely another super-sensitive pan. It represents the ultimate word in present-day laboratory research, possesses an equivalent balance for the yellow, red and green rays of the spectrum and enables one to dispense with the use of a green filter. It is exceedingly fine grain and anti-halo. For best results, use Kin-O-Lux No. 3.

100 ft. __**$6.00** 50 ft. __**$3.50**

Every roll of Kin-O-Lux film is Scratch-Proofed by the famous Teitel Method, ensuring long life and a practical immunity to deterioration from time, use and the elements.

Prices include Scratch-Proofing, Processing and return postage.

Send for Catalog "A".

KIN-O-LUX, INC.

105 West 40th Street New York

Closeups

One of the extra compensations at League headquarters is that we get to meet and talk with a lot of interesting people. Explorers, for instance. If you haven't the nerve to slam shut your desk and go off down the trail of wanderlust, there's nothing quite so refreshing as talking with those who do. Sooner or later, most of the Number One wanderers seem to gravitate to the League's office. Alan Villiers you know about—Australian grain racer, amateur cinematographer, Movie Makers author and ship owner. We were reminded of him just recently, when Ackroyd Kelly dropped in for a chat. Born in New Zealand, one time cameraman for the Dominion's publicity films and late oceanographer of the first Byrd expedition. Mr. Kelly, it turned out, knew Villiers well. In fact, exploring is like that, seeming to create among its devotees an informal fraternity, whereby each member inevitably knows all the others and just where they are at the given moment.

Other top notch adventurers who have dropped in during the past year or two include Gloria Hollister, Dr. William Beebe's former assistant ("She's just back from British Guiana," remarked Kelly); Andre and William LaVarre ("William and his missus have just returned to British Guiana," remarked Kelly); Captain Erskine Loch, ACL ("He's in British Guiana," we remarked, beating Kelly to it at last). Among other explorers who have paid the League a visit are Harrison Forman, Ralph F. Donaldson and Captain R. Stuart Murray, ACL. Kelly is shoving off for Georgetown himself pretty soon. From there he will be ninety days going up country by river, and from then on it will be machetes through the jungle. With but one other white man, he is going to look for Paul Redfern, the now almost legendary lost aviator.

You probably aren't as provincial as we are, living here in New York as we do, but it came to us as pretty much of a surprise to learn that vast herds of beef cattle roam the uplands of the Philippine Islands. Cowboys (*vaqueros*, out that way), riding herd and all the romantic trappings of America's classic West seem to be thriving in the mountainous country of Mindanao. These were but some of the things which we learned from *The Last Round Up*, a three reel, 16mm. record film of the great Diklom Ranch, produced over a period of years by W. G. Hahn, the ranch's superintendent. As he suggests in a letter, it is "a film that is full of the Philippino out of doors and one that brings out the toils and pleasures of the island cowpuneher's workaday life."

Kodachrome is faster

[Continued from page 379]

Before 9 a.m. and after 4 p.m., open up one half stop over the basic exposure before making any additional computations. During the winter months also open up one half stop over the basic exposure.

When filming in the shade, follow the basic exposures for shade given in the Exposure Guide, packed with your film.

This excellent system is easily followed. For example, assume that we have decided that Light 3 represents the sky condition and that we are filming a girl in a light yellow dress, seated in a swing. In shooting the average medium shot, we would make no compensation for distance and, if the lighting is from the front, we can leave out that consideration, and so there remains only the color of the subject, for which we would close one half stop. This would give an exposure of between $f/5.6$ and $f/8$, since $f/8$ is the basic exposure for Light 3.

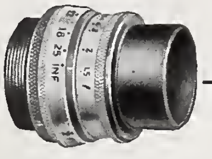
On the other hand, were we to take a closeup of the girl's face, we would open a half stop for the closeup and yet, should she be a blonde, we would close down a half stop for light color, and the two corrections would cancel each other. One simply adds and subtracts for the various factors, that have been listed, and uses the resultant exposure.

Tabulate these conditions on two or three cards and study them in reference to shots that you would be likely to make and you will find that they cover almost every need that you will meet.

In deciding whether a color is light or dark, sometimes one is troubled by what one has learned or read in reference to the sensitivity of black and white film. When filming with Kodachrome, it is best to forget temporarily about black and white movie and still photography. Judge the colors as they strike your eye. Consider purples, reds, dark oranges and dark green as dark colors and open up a half stop accordingly. Consider light yellow, light blue, light green and the pastel shades as light colors and close down a half stop.

Shades of green and blue, ever present in landscape and sky shots, are perhaps the trickiest to judge with the new faster Kodachrome. With green, a good dividing point is emerald green—consider it an average color—and for markedly lighter green, close down one half stop and for decidedly darker green, open up a half stop. Light green foliage often will be better for closing down a half stop.

You probably will be better pleased with the screen results if you do not close down one half stop for a really blue sky, although in a sense it is bound to be a light color. On the other hand, don't hesitate to close down a half stop



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for pale, almost white, sky. Otherwise, the results on the screen, although entirely realistic, will not be pleasant.

Be sure that the shot is really distant and in the open before you close down a half stop for that factor. If you are to open up a half stop for a closeup, the camera should be within five feet of the subject.

Telephoto shots are the hardest to judge with this system because distance misrepresents colors and light conditions to the eye, while the telephoto eliminates a considerable amount of the distance and sees them, in many cases, as they really are. The best procedure is to apply the exposure guide to some similar, nearby subject under the same lighting conditions and to use the resultant exposure for the telephoto shot. Hazy and dusty air will ruin a Kodachrome scene made with a telephoto.

Movie makers who use exposure meters should get the rating for the faster Kodachrome from the meter manufacturer, if they have not already received notice of it. Hold the meter close to the subject, tilted slightly downward so that the meter field will not be too greatly affected by bright sky.

Meters are particularly helpful under fairly bad lighting conditions—in the shade and under porches and trees—when even the most careful judgment seems to go wrong at times. Meter owners who would like to try the exposure system outlined above will find their meters invaluable accessories in determining the basic exposure. Simply take a number of readings of average subjects that are flat lighted and you will readily discover the overall light with which you are dealing. If you use the exposure system, presented here, in arriving at the exact exposure of a particular subject, put your meter away after you have checked your judgment of the basic light condition.

Similarly, if you use a meter for your final exposure determination, forget the exposure system. It is amazing how exactly a reading, obtained from a properly handled meter, will check with the results arrived at through this system. Yet, to combine the two methods is bound to lead to confusion. Follow your meter or follow the method of judging exposures outlined here. You have a third choice—follow the exposure guide packed with your film. But, whatever you do, don't simply guess at Kodachrome exposures on the basis of black and white filming experience.

To achieve consistently good results with Kodachrome requires an awareness of colors and lighting conditions that is rarely needed in black and white movie making. Fortunately, this awareness is easy to acquire and it is good fun doing it—sort of a game with light and color.

What color is it really? Where does the light come from? How could I turn

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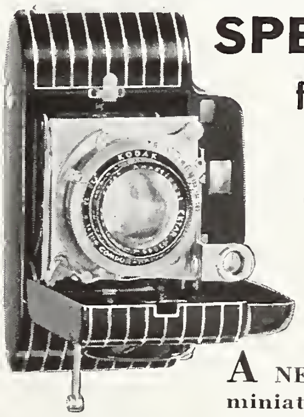

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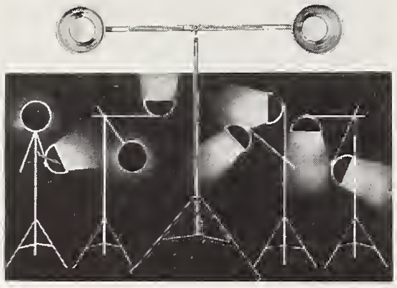

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her to get a more even light on her face and still capture that cloud in the background? These and many similar questions the Kodachrome filmer will ask himself as he goes about the fascinating business of creating and recording beauty in color.

He can decide whether or not he wants to emphasize one color over another by adjusting the exposure for the favored hue. But, in such careful work, he must remember that, under similar conditions, even the painter must make some sacrifices—that no known art, graphic or photographic, can record all the tones of a possible scene with equal fidelity in every shade and color. Nature seems to reserve that privilege for herself and, accordingly, painter or movie maker must make a choice of what he wants and how he wants it.

Projecting sound films

[Continued from page 386]

When the recording itself is at a low level, it is of course not possible to get much improvement by the device of reducing volume, and the purchaser of sound films should accustom himself to seeing that the films he buys are recorded at a good level. This is easy to judge in the case of variable width records where the waves can be seen to fill the sound track area when fully modulated but, in the case of variable density records, the level is not so easily judged. While insisting that the films he buys are recorded at a good level, the purchaser should guard against recordings which are made at too high a level (overshot), for such a condition is a source of serious harmonic distortion.

Also, prints which are made too dense, or too light, are likely to possess a distortion peculiar to these conditions, characterized by a "spitting" or "blasting" sound which accompanies the sibilant sounds in speech. This distortion has a sound which is similar to that which results when paper is torn jerkily. Prints which are too light or too dark will also be somewhat noisy, due either to transmission of light through the dark part of the sound track, with resultant modulation of the light by the emulsion grains and dirt particles in the dark part of the too light track, or due to the presence of emulsion grains in the clear portion of the too dark track, which produce hiss. These defects, being a product of improper control in printing and developing, are of course largely removable by reprinting under proper conditions. If there are a number of prints of a given subject to choose from, as in a store or library, and these defects are found to occur in one of the prints, it may be found that they do not occur at all in the others.

After a review of these possible defects in the sound on film record itself, the reader will feel quite sure that he

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will never obtain a good record. These troubles, however, present problems to the sound engineer, who has really solved nearly all of them, so that when they are found in a recording they are evidence of faults in recording and processing technique rather than of fundamental and unavoidable defects in the sound on film process.

The purchaser can best guard against poor records by listening to them before purchasing, either on equipment in the store or on his own equipment at home.

Assuming that the sound record is itself of good quality and that it is clean (a condition which is the product of careful handling, storage and frequent cleansing with a soft velvet pad moistened with carbona or carbon tetrachloride), the projectionist is ready to place responsibility for good sound reproduction upon his projector itself and upon the room in which the presentation is made.

(Editor's note: This is the first of two articles by Mr. Sachtleben on the technique of sound on film projection. The second, dealing with the projector itself, will appear in October Movie Makers.)

Analyzing continuity

[Continued from page 383]

the settings, *all* the costumes, *all* the "props," and without which the casting manager will be unable to make arrangements for the cast; the costume man will not know what to supply; the scene designer will leave out some essential detail of construction; the property man will have to absent himself in the middle of the shooting to root out some important "prop" not mentioned at rehearsal.

The progress of a movie is much like the building of a house. First a series of unconnected rough ideas and a price; then a rough draft; then a plan; then the blue prints. Of course the human element in the drama may force a last-minute change in the continuity, as the discovery of shifting sands under the foundation may force the architect to alter his blue prints. But that is no reason for improvising. The best prepared plot will usually look the most spontaneous.

And so that part of the continuity finally will look something like this:

1. *Long shot.* Interior office. Bookkeeper's desk in foreground, others in background and a door center back. Heavy safe in middle of room, large enough for account books; closet door right, by drinking fountain; a practical clock on wall, above door. The hands point to five.

John, wearing a cheap suit, is busy in foreground, making entries in his books. His hair is slightly ruffled, after a day's work. He does not notice that the other

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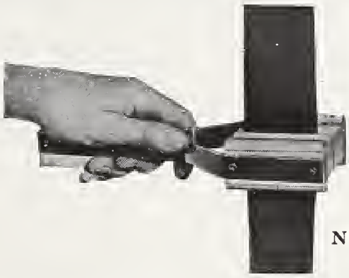

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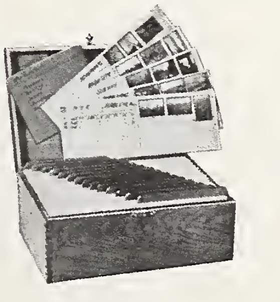

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clerks are beginning to leave, after taking their hats from the closet.

2. *Closeup* of same. John finishes an entry, jerks up his head with a smile of relief, takes a breath, looks around. Sees others going, looks at clock.

3. Insert closeup of clock registering 5:04.

2. *Continued.* Return to closeup. John looks happy that the day is over. He relaxes snappily but carefully closes his books. (Note the characterization. If this were planned on the spur of the moment, without a written continuity, the actor might be tempted to look too well pleased with finishing the day's work, and to become careless. That would stamp him for the rest of the picture as a different kind of person from the type described here.)

4. *Long shot* of the same. John puts away his books in safe. He goes to the closet, without entering it, and reaches in for his hat. He walks snappily out, greeting the janitor who has just entered with pan and broom.

Thus the scenario would be written with each detail in turn. Where. a little later, the story says, "He is tempted to buy himself a necktie," the continuity writer asks himself, "How is a man tempted? What does he do?" His answer may be like this:

9. *Medium.* Front of haberdasher's store. John passes by, casually. Almost as he has left the store front he comes out of his dream, retraces his steps, as he has seen something in the window. It is a display of neckties. He looks at it attentively. At the side of the store window there is a long, narrow mirror. John stands in front of it, looks at his tie, opening the top button of his vest and putting his right thumb under his tie, so he can look at it down his chin, and compare it with the reflection in the mirror. Yes, the tie is old and frayed. He walks toward the entrance, pulls up sharply. What about money? He pulls out his coin purse (another characterizing detail, which the actor could not improvise at the time, unless he happened to have a coin purse). He makes a mental calculation, chin down, then jerks his head; smiles, as he has a better idea; takes a half dollar out of his purse and closes it snappily. He looks around and sees—

10. *Medium.* Cut to a flower vendor's stand, etc.

In brief, the continuity is a written advance visualization of the finished picture. Its wording will be substantially identical with the report that might be given by an extremely observant spectator after viewing the play on the screen. If anybody finds it difficult to visualize to that extent, practice can be had without cost by staying over two or three shows at a movie theatre, and trying afterward to reduce a whole sequence to written continuity.

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few problems left to be worked out on the set by actor and director. A strong plot, a full continuity, a good cast, good lighting and camera work, and the result is a good picture.

(Editor's note: This is the sequel to "He and she, not it" in August Movie Makers.*)*

The camera in school

[Continued from page 381]

outgrowth of careful planning, experience, trial and error, plus instruction in the fundamentals of composition in photography and art. No adviser need worry about these things if he carries along an active program. Just as nature provides biological responses to overcome disease germs, so aptitudes and skills will be instilled in boys and girls with results that will amaze the adult.

As to lenses, you might start with a standard one inch fast lens, such as the $f/1.9$, $f/1.8$ or $f/1.5$, and later you can get a three inch telephoto and a wide angle lens. The first is a good objective for interiors and color work, the second you will want for shots of outdoor games and the third for close quarters in the classroom.

Now you are about ready for lights. Two mogul photofloods, two broad lights, one spotlight and two reflector units ought to meet the needs of any situation. Some of these you may purchase. You might find it a good creative outlet to have your group make the necessary bases and reflectors. (See indexes of back numbers of Movie Makers for articles on the subject.)

Your first roll of film will look much better titled. Titles may be typewritten, printed or made by using one of several movable letter devices on the market. Egg noodles will do the trick too. These titles may be shot on either positive or reversal film. The titler may be purchased to fit your camera or constructed by the club. Now, if you had a splicer and an editing board, you would be able to show, in the school auditorium, pictures planned and produced from start to finish by your group.

As time goes on, your club also will store away a creditable library of school films. These may include a film made as a civic enterprise to help the community chest, a film produced in cooperation with a large department store to emphasize vocational guidance, a film showing library usages, a film on safe driving and walking, made in conjunction with the motor vehicle department. The club may make pictures on biology, art, sewing, shop work, commercial subject techniques, literature and mathematics—in fact, on any subject related to school life. The best teaching films of the future will come out of the classroom. And, while forecasting, we might go one step farther and predict that the

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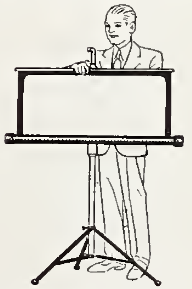

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progressive schools of the future will offer credit courses in movie making. Teaching films (silent, sound and color) will be produced in correlation with the several classrooms.

There will be plenty of difficulties in your way as your club grows up. About the time one group really is getting good, graduation will claim most of it. You will sympathize with the football coach on this point. Then, there is danger that costly equipment may be mishandled. But, if undue haste is avoided, these problems and more may be met in turn and will all be part of the fun. Start small, progress slowly and you will get there faster.

Kodachrome for "stills"

[Continued from page 387]

and red and yellow will be somewhat emphasized.

Flat, front lighting will give the best color, but it is not so important to avoid color back and side lighting continually as it is to make sure that, in such shots, the part of the subject in shadow is *adequately lighted and exposed.* The difficulty in such cases is usually in a tendency to expose for the bright side of the subject instead of its shadow.

Where side lighting is attempted, it is especially beneficial in color shots to employ a good generous lens hood, and such an aid is always a help with a fast lens at all times.

The ability to make time exposures is a great boon, with the still camera, in making indoor shots of inanimate objects, when a very small stop seems desirable to secure depth and definition. This would be the case when making shots of interior decorating schemes and the like. Color "stills" may be taken with artificial lighting of the flood light type by using the filter provided for the purpose.

Candid camera work in color will prove somewhat more difficult than in black and white, because subjects which one wishes to shoot surreptitiously do not always place themselves in the best possible positions for lighting with color film. In general, even with a fast lens, it is not wise to attempt such shots in interiors by ordinary artificial light, because, to give correct color balance with the present emulsion available, a filter should be used. With this filter, the subject should be illuminated by lamps of the flood type.

Kodachrome records, in still film form, of objects of art, illuminated manuscripts, rugs, maps and paintings are, of course, a most valuable use of still Kodachrome. With these objects, time exposures may be given, and, with the use of a small stop and full illumination, the utmost detail can be secured. Such pictures, projected with brilliant detail on the screen, would probably

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Movies aid labor

[Continued from page 389]

tions, skill, fatigue, "energy cost" of doing work, physiology of the human body, as it pertains to muscular work, and other essential factors. This second course is intended only for graduate students and those seniors primarily interested in this field.

A special laboratory has been developed during the past seven years and is set aside for time and motion study work. This laboratory is available both for research projects and for undergraduate instruction. We are equipped to present and demonstrate the fundamentals underlying time and motion study methods as practiced in the most successful plants in this country.

Decimal minute stop watches and time study boards of the conventional type are supplied to each student for his individual use during the stop watch time study course. Special slide rules, speed counters, tachometers, speed and feed charts and data on cutting metals are available.

For micromotion study work, the laboratory is equipped with an Eastman Model A 16mm. camera which may be either hand cranked or driven by a synchronous electric motor to give a constant rate of film exposure. By means of a gear transmission, speeds of 1000 to 4000 exposures a minute may be obtained. The University also owns two 16mm. spring driven cameras which are available for micromotion study work.

Our laboratory has a 16mm. projector equipped with a mechanical tachometer for indicating projection speeds directly in frames a minute. Five small projectors with 100 watt bulbs are available for film analysis.

The laboratory has three small stalls, or booths, in which film analysis may be carried on without darkening the room. The entire laboratory, or either of the two rooms, can be darkened when extended film analysis is being carried on.

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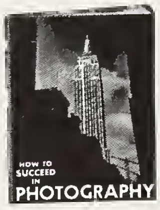

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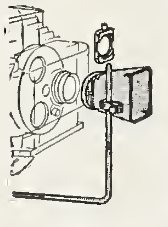

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hand motions. Time measurements can be made with an accuracy of 1/1000 of a second.

A text book and lithoprinted manual by the author are used in the course. This material is supplemented by lectures and by outside readings from books and magazines listed in a special bibliography prepared for the course.

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Not more than fourteen students are permitted to register in one laboratory section. Two students ordinarily work together on long projects. The class meets for two one hour periods and one three hour period a week.

During the motion study and micromotion study course, each student (or pair of students) works out an improved method for some simple assembly operation which will require the application of the principles of motion economy. Motion pictures are made of "old" and "new" methods, and each student analyzes the film and makes a chart of each. Because of the lack of time in this course, ordinarily all the students do not actually build the jigs and fixtures needed in working out their particular problems, but submit their solutions in report form for class discussion. There are sufficient standard bins, vises, jigs, etc., available in the laboratory to permit some students to set up apparatus to demonstrate their proposed method. These are then used as subjects for making motion pictures for analysis purposes.

The clinic

[Continued from page 385]

there is a definite flicker and then gradually speeding it up until the flicker vanishes. The test should be made with film which has average exposure—not heavy overexposure. The projector cannot be timed accurately without any film. The brighter the screen, the more pronounced the flicker, so that a machine adjusted to run fast enough to eliminate flicker with the average picture usually shows quite a bad one if it is run without film. Sound projectors must always operate at a constant speed of twenty four frames a second, and the driving mechanism is designed to maintain this speed.

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	Width of Picture							
1 ft	6"							
2'	1' 0"	9"						
3'	1' 6"	1' 1"	9"					
4'	2' 0"	1' 6"	1' 0"	9"				
5'	2' 6"	1' 10"	1' 3"	11"				
6'	3' 0"	2' 3"	1' 6"	1' 1"	10"			
8'	4' 0"	3' 0"	2' 0"	1' 6"	1' 2"			
10'	5' 0"	3' 9"	2' 6"	1' 10"	1' 6"	1' 3"	1' 0"	
12'	6' 0"	4' 6"	3' 0"	2' 3"	1' 9"	1' 6"	1' 3"	1' 1"
16'	8' 0"	6' 0"	4' 0"	3' 0"	2' 4"	2' 0"	1' 8"	1' 6"
20'	10' 0"	7' 6"	5' 0"	3' 9"	3' 0"	2' 6"	2' 1"	1' 10"
25'	12' 6"	9' 4"	6' 3"	4' 8"	3' 9"	3' 1"	2' 8"	2' 4"
32'		11' 11"	8' 0"	6' 0"	4' 9"	4' 0"	3' 5"	3' 0"
36'		13' 5"	9' 0"	6' 9"	5' 4"	4' 6"	3' 10"	3' 3"
40'		14' 11"	10' 0"	7' 5"	6' 0"	5' 0"	4' 3"	3' 9"
45'			11' 3"	8' 5"	6' 9"	5' 7"	4' 9"	4' 2"
50'			12' 6"	9' 4"	7' 6"	6' 3"	5' 4"	4' 8"
64'				11' 11"	9' 7"	8' 0"	6' 11"	6' 0"
75'				14' 0"	11' 3"	9' 4"	8' 0"	7' 0"
100'				18' 9"	15' 0"	12' 6"	10' 8"	9' 4"
125'				23' 5"	19' 8"	15' 7"	13' 4"	11' 8"
150'				28' 1"	22' 5"	18' 8'	16' 0"	14' 0"

Preserve this cine table in your note book or card file

age several inches of film. Whenever the loop is lost, it is good practice to examine the film to see just what is wrong with it. In the case of damaged perforations, make it a point to cut them out before the film is rewound, so that the picture will be ready for future screenings without delay. One of the best safeguards against damaged film is a long leader at the start so that an appreciable length of film will run through the machine before the picture begins. Thus, faulty operation or threading will be apparent before a scene is damaged.

There's a camera in camp!

[Continued from page 384]

dozen feet back from the tent opening and, with the three inch telephoto lens, secured the type of closeups which might justify any movie maker being boiled in oil. The first camper crawled out, boots unlaced, breeches dangling, sleep still loitering in his light squinted eyes. Behind him trailed a six footer who socked his head unceremoniously on a tent rope as he straightened up and let forth a lot of verbal blasphemy which, thanks to silent movies, did not record. The third mate stumbled out shirtless, stretched, yawned and peered straight into the camera lens. The yawn changed to a sheepish grin, and the sequence was complete.

Such candid shots often bring ready support in the movie making end of the trip, providing a source of unfailing in-

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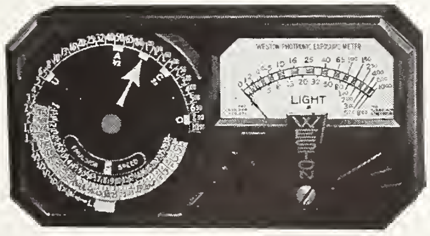

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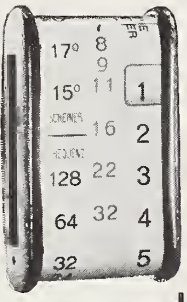

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terest until the films are developed and finally screened. Non movie making campers are sometimes curious about cine tricks, such as stop camera and reverse motion, and cooperation often results in letting one of the party operate the camera on some such trick just to get the feel of movie making. We do not make a practice, however, of permitting anybody to pick up and use the camera at will.

We have found that the best bet is to own all equipment and films used on any one trip. This removes the obligation of lending the completed film to any one of the party for personal or public showings once the trip is over. Of course, if duplicates are wanted, this can be arranged.

Rear projection

[Continued from page 388]

would seem to lean either toward or away from the background.

When viewing a motion picture on a movie screen, the human eye sees a continuous flow of pictures because of the phenomenon of persistence of vision, while in reality the projection of pictures is intermittent and the screen contains no pictures during a certain portion of the time. The problem of a "dark" screen is overcome in rear projection by keeping the movie camera and the projector in step so that the shutters of both are opened simultaneously. In order to maintain synchronization, various methods, such as synchronous, or interlocking, motors and long shafts with mechanical arrangements which operate both the camera and projector, are used.

The interlock motor is generally used in conjunction with the Western Electric sound system and the synchronous motor with the RCA sound system; the motor in the interlock system maintains synchronization by a DC controlled motor field and an electrical lock drive, while the synchronous motor method maintains the "step" by a saturated electrical level in the field. Both methods motivate the intermittents of the camera and projector in synchronization. The shaft system of synchronization consists of a powered shaft from which are operated both the camera and the projector.

George Teague was responsible for much of the pioneering and many of the improvements in rear projection. He did much of the process work in the Korda film, *Things to Come*, for which he made about sixty five shots. In these scenes, he introduced real life actors into miniature settings by filming scenes of miniature settings and then enlarging them by projection on a large size screen. In front of the screen, the actors enacted the desired rôles.

Likewise, his system was used in making the sleigh ride scenes in the Walter Wanger production, *The Moon Is Our Home*, in which a couple go for a sleigh ride behind a runaway horse. The advantage of using process or trick photography for such scenes is obvious, in that there is no risk to the players and better camera angles may be obtained.

The source of illumination for the projection is usually a ninety ampere arc. The arc illumination is necessary because of the long throw in the projection, which ranges from ninety five to a hundred twenty five feet in most systems, although Mr. Teague, using an optical mirror for condensing the arc light, throws his background movie only fifty or sixty five feet. The longer throws are necessary to eliminate the hot spot of the arc light and to smooth out the illumination on the background screen.

The screens are usually twelve by eighteen feet in size, although the 20th Century-Fox Studio has a twenty four by twenty six foot screen. The larger screens are not used extensively, because of the difficulty of projecting a good picture. Also, with the larger screen, the illumination of the foreground may spread to the background screen movie and thus diffuse it.

While a finely ground glass was used for the earlier screens, an acetate screen now largely is used. This type of acetate or celluloid screen is made by spraying seventy to one hundred coats on a specially prepared wax coated matrix of airplane linen. The linen matrix is hung up flat, and the spray man stands under it and sprays upward, so as to insure evenness and good quality of texture, which is very essential for good rear projection shots. After the celluloid base is completed, about twenty coats of a quartz glass tooth in a liquid binder are sprayed on the celluloid. A thicker coat of quartz glass is applied to the center portion of the screen to make it more opaque, because of the tendency of the projected image to be brighter in the center.

News of the industry

[Continued from page 392]

gear reduction for driving the mechanism at the proper speed. A special safety device has been developed in conjunction with this, making it impossible to start the electric motor until the camera operating button is depressed. With the camera spring in the run down position, the camera may be driven indefinitely by the motor. The entire attachment is finished in chromium and gray crackle.

New Kodak tank ■ Those who engage in home developing their own roll film still pictures will be interested in the new Kodak Adjustable Film Tank, recently announced by the Eastman Kodak Company, Rochester, N. Y. The tank consists of an outer container of stainless, acid resisting steel, which holds the film reel that is molded from an impervious plastic. The film is conveniently loaded on this reel in changing bag or dark room, and the cover of the tank is affixed. An ingenious device permits changing the capacity of the developing reel so that it will accommodate film sizes of 616 and 116, 620 and 120, 127, 828 (Kodak Bantam size) and the 35mm. size as used in miniature cameras.

Amateur clubs

[Continued from page 380]

sulation, by Douglas Barrett: 100 feet of Kodachrome, by Kenneth Bloomer, ACL; *London Terrace*, a Movie Makers Ten Best winner, produced and lent by T. W. Willard, ACL; *Fishers of Grande Anse* and *Choosing a Scenario*, both award winners from this magazine, lent from the Club Library of the League. Membership in the Mount Kisco club will be limited henceforth to twenty five regular and associate members, in accord with the club's recent decision. Meetings will resume on the Monday following Labor Day, September 14.

K. C. cinema ■ Organized under the leadership of Richard A. Rowland, ACL, the Reelite Cinema Club is a recently formed amateur producing group in Kansas City, Mo. Ten enthusiasts signed the rolls as charter members and twenty two are now active in the club. Mr. Rowland serves the group as president and cameraman, while other officers include William Misselwitz, director; Kathleen Burns, vicepresident; Hilda Walter, secretary; Mardell Leafgreen, treasurer; Ruth Clark, social secretary; Asa Pinkerton, business manager; Lucille Fields, makeup and property manager. Meetings have been held each week on Tuesday evenings, with discussions, demonstrations and experiments on production problems.

Chevy Chase ■ In Washington, D. C., eight charter members have banded together to form the Chevy Chase Cinema Club, a group devoted primarily to the study of good individual movie making and secondarily to the communal production of club films. Although all eight original members are employed by the National Bureau of Standards, the club is in no sense a part of Bureau activity nor will membership be limited to Bureau employees. Ray P. Teele has been elected first president, with John A. Bartelt as secretary treasurer. A one reel film, *Winter Streams*, the production of club member Gerald K. Neeland, has already been contributed by the Chevy Chase group to the Club Film Library of the League.

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All film widths are eligible for the Ten Best except that 35mm. films made for compensation from a client cannot be considered. Entries are divided into two categories:

1. SPECIAL—All films for which the maker has received compensation from a client at any time previous to the official closing of the year's competition. (35mm. pictures cannot be entered in this category.)

2. GENERAL—All films made on stock of any width which do not fall into the class above.

So that the staff of MOVIE MAKERS can be certain as to which class a film belongs, it will be necessary to supply a certificate concerning the picture's standing in this regard. The certificate should be made in the following manner:

Place ....
Date ....
I, ... (name) .... certify that I did / did not receive compensation from a client for a motion picture made by me entitled .... (name of film) ....
.... (signature) ....

Before the final selection is made, these certificates will be requested individually from all movie makers whose films are being considered. However, it would be advisable to execute this certificate and to send it with the film rather than to wait for the final request for it.

●

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- Beverly Hills: W. L. Martindale, 9477 Santa Monica Blvd.
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  - Laval Co., Inc., 1319 L St.
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- Hollywood: Bell & Howell Co., 716 N. La Brea Ave.
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  - Duhem Motion Picture Mfg. Co., 135 Hayes St. (Civic Center).
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  - Hirsch & Kaye, 239 Grant Ave.
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- Grand Junction: Lincoln Park Pharmacy, 727 N. 12th St.
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- Flint: Gardner Photo Service, 1425 Detroit St.
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- Jackson: Royal Film Service, 125 Michigan Ave., W.
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  - E. B. Meyrowitz, Inc., 358 St. Peter St.
  - St. Marie Cigar & News Co., 96 E. 5th St.

(Continued on page 408)

Announcing

A New Technical Bulletin

COLOR FILMING

26 pages, illustrated, by Frederick G. Beach, ACL, Technical Consultant of the League.

HERE is the latest information on the exposure of Kodachrome, for outdoor and interior filming. Included in the booklet are discussions of projecting Kodachrome and its care and handling.

Following the policy of keeping abreast, in its bulletin service, with the latest developments in movie making technique, the Amateur Cinema League, Inc., announces publication of a new technical booklet, *Color filming*, twenty six pages, illustrated, by Frederick G. Beach, ACL.

This booklet, which has been sent to all League members who have requested to be put on the bulletin mailing list, discusses the exposure of the new, faster Kodachrome in detail and gives the latest information on interior movie making with Type A Kodachrome. The Kodachrome exposure data in this bulletin supersede that in *Making Better Movies*.

Both 8mm. and 16mm. color filming are covered and the booklet is illustrated with reproductions of photographs of lighting conditions and examples of typical exposure conditions, indoors and outdoors. Included are simple tables, charts and diagrams to make this convenient, pocket size booklet a complete up to date guide to Kodachrome filming.

Bulletins and booklets published by the League are available only to members. A post card request will bring a member any Bulletin that is in print, and members may request that all printed bulletins be sent them as published.

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Practical films

■ An eleven hundred foot, all Kodachrome movie of Mt. Vernon Seminary, Washington, D. C., has been completed by the Willard Motion Picture Company, New York City, a firm founded and headed by T. W. Willard, ACL. To be used as a record for the school itself, the film will also be sent out for screenings before alumni. One of the novel features of the film was the double exposure of the titles on colorful, action backgrounds, the titles fading in and out without breaking into the action of the scenes. Although the all color film is a finished piece as it stands, snow scenes may be added this winter to round out the idea of the school year as a whole. Some of the Willard Motion Picture Company's latest pictures include *Reunion Day for Princeton's Class of 1900*, *Choate School Alumni Day* and *Pomfret Boys' Preparatory School*. Mr. Willard, who has made, altogether, fifteen movies of various schools, may be considered an authority on the subject.

■ Elias Katz, graduate student at Teachers College, Columbia University, reports that, instead of taking a final examination in a course on American Civilization, sophomores at Horace Mann School for Girls were permitted recently to produce a movie. Working cooperatively, they prepared the script, planned the settings, designed the costumes and produced the picture. Other student productions that Mr. Katz has inspired and supervised technically are *Brothers of Altamira*, made by students at Lincoln School; *Their Adopted Country*, a story of the Americanization of a family of Italian immigrants, produced by students at Horace Mann; *Saint Joan of Orleans*, a record of the Festival of Ethical Culture Schools at Fieldston, N. Y. He also has made a one reel picture on creative design in painting, as demonstrated by Professor Charles J. Martin of the Department of Fine Arts, Teachers College, Columbia University.

■ *In the Beginning*, Ten Best place winner in Movie Makers 1935 listing, produced by Fred C. Ells, ACL, in Yokohama, Japan, has been shown in several Japanese schools.

■ Highlights in the manufacture of cotton, rayon and silk hosiery are being pictured in a one reel, 16mm. film by C. W. Knott, manager of the Hickory Camera Exchange, ACL, and secretary treasurer of the Hollar Hosiery Mills, both of Hickory, N. C. Mr. Knott has planned carefully a presentation which will feature some of the mechanical marvels of modern hosiery production, items which he hopes to bring out by the use of adequate closeups and slow motion camera speeds.

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NEW FILM SPEEDS

Owners of the Exposure Reference Book (which accompanies each Photoscop) are requested to note these changes and additions for the Film Speed List. It is suggested that they be written in the margins of the book.

Agfa Superpan, all forms	24	22
Agfa Supersensitive Plenachrome	24	20
E.K., S.S. Panchromatic Press films	25	24
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New Cine-Kodak Kodachrome Safety Color Film, without filter, both 8mm. and 16mm.	17	15
Cine-Kodak Kodachrome Safety Color Film, Type A, without filter	**	14

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(Continued from page 406)

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Eastman Kodak Stores, Inc., 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores, Inc., 1009 Olive St.
Erker Bros., 608 Olive St.
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
W. Schiller & Co., 6 S. Broadway.
Scruggs-Vandervoort-Barney Dry Goods Co., Dept. No. 551, Ninth to Tenth, Olive and Locust.

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Butte: Al's Photo Shop, 42 N. Main St.

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Lawlor Sporting Goods Co., Inc., 1118 O St.
Omaha: Eastman Kodak Stores, Inc., 1618 Harney St.
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Tecumseh: Gamble Store Agency.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Nashua: Nashua Optical Co., 202 Main St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St.
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Davega-City Radio, Inc., 60 Park Pl.
Firemen's Pharmacy Co., 765 Broad St.
GRUBER'S CAMERA EXCHANGE, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Trenton: Dwyer Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
STEWART'S SCHOOL FILMS, 143 Hunter Ave.

NEW MEXICO

Albuquerque: Compton Studio, 302½ W. Central Ave.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams. Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store. 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: Aladdin Camera Exchange, 4 E. 32nd St.
American News Co. and its Subsidiaries, 131 Varick St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
Broadway Camera Exchange, 1595 Broadway.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega. Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
FIFTH AVENUE FILM & CAMERA CO., 545 Fifth Ave.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
Luma Camera Service, Inc., 330 W. 42nd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Rubin's Film Exchange, 11 Essex St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Port Chester: John F. Mowbray, Capitol Theatre Bldg.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Edwin A. Hahn, 223 Columbia St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 39 E. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, 220 Second St., N. W.
Canton: Camera Shop, 531 Market Ave. N.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. Fourth St.
Huber Art Co., 124 Seventh St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. Sixth St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Lima: Acme Cine Service, 1204 W. Market St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Harold E. Monroe, 802 Waller St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., 101 E. 4th St.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H & R Camera Exchange. 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Men's Store, Dept. 2, No. 1 Broad St.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co.. 126 Sixth St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers. 416 N. Fifth St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc.. 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.,
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Metropolitan Photo Supply Co., 33 Aborn St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co.. 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores. Inc., 1415 Fourth Ave.
Lowman & Hanford, 1512 Second Ave.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Huntington: Honaker Book & News Co., 418 Ninth St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & Fourth St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
232 W. Wisconsin Ave.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., Third and Garfield.
12th and Vliet.
11th and Mitchell.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSION

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas e Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., 252 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News, Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co., Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 24 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 445 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
Budtz-Mullers Eftf. A/S, Bredgade 29.
Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Arts Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Leeds 1: Pearson & Denham (Photo), Ltd., 6 Bond St.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
R. E. Schneider, Keystone Distribution Dept., 46 Farringdon St.
N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbins (Suburban) Ltd., 131 High St., Putney.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 13 & 14 Great Castle St., Oxford Circus.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8.: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.
Stockport: Hidderley Radio Sales, 48 St. Petersgate.

FINLAND

Helsinki: Aurora Filmi, Yrjonkatu 17A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseille: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Monte Carlo: Kodak Pathe S. A. F., 6 Blvd. des Moulins.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Establs. J. ChOtard. 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City." Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis. Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka" Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart. 160 Hornby Rd.
Calcutta: Army & Navy Stores. Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., 154 Dharamtala St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).
Lamperti & Garbagnati, Piazza S. Alessandro N. 4 (106).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S. A. F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlein, A/S, Nedre Slotsgate 13.

PANAMA

Panama City: Lewis Service, Inc., 124 Central Ave.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa. Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C. 1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A.. Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Struhin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co.. Bahnhofstrasse 40.
Gimmi & Co.. Cine-Service, Stadelhoferplatz.
Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

MURDER AT MIDNIGHT

Featuring Hale Hamilton, Aileen Pringle and Alice White

Good murder mystery filled with baffling situations. With the finger of suspicion pointing at practically every character in the picture, this melodrama moves along at a fast pace, with the clever police inspector as the hero. The picture starts off with an "accidental" murder during a parlor charade and subsequently three other killings occur, under most mysterious circumstances. The very neat plot continually throws suspicion from one person to another. Seven reels. Talking picture.

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CATALOGUES

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8mm. SILENT—New Fifth Edition 52 page Illustrated Descriptive Catalogue, containing many new Comedies, Cartoons, and Features.

16mm. TALKING—Fourth Edition 64 page Illustrated Descriptive Catalogue, containing many exclusive Comedies, Cartoons, and Features.

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BARNYARD BROADCAST

A Mickey Mouse Cartoon

In Mickey's barn studio we find a string trio performing. The control room is elaborate and has ingenious instruments. Horse Collar proves adept with a musical saw.

Pluto, tied to his kennel at home, tears his receiving set to pieces when he hears the yowls of a cat which has entered the studio.

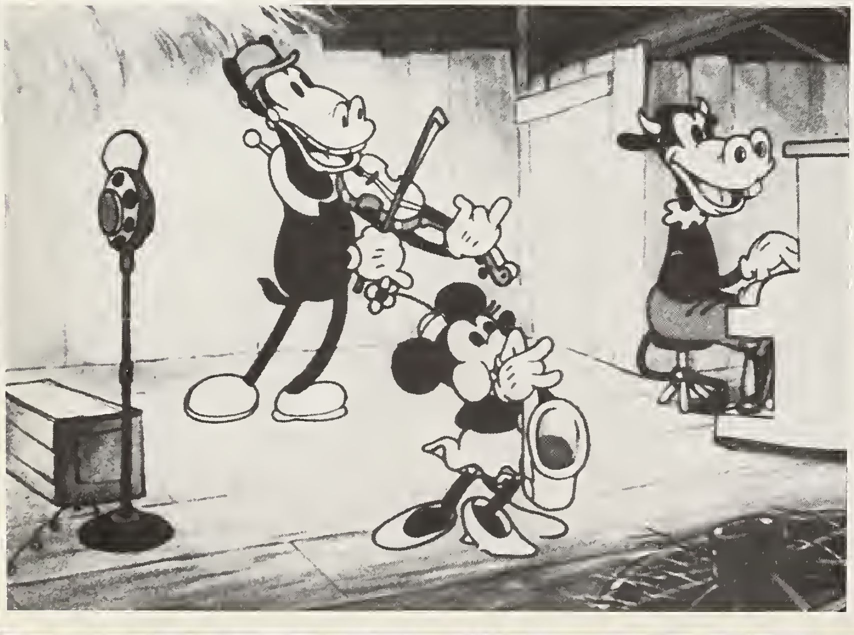
The cat with many kittens proves too much competition for Minnie Mouse and her harp solo. Mickey has a terrible time trying to get rid of these cats. They seem to be everywhere at once. The end of the picture and of the studio comes when the water tank on the roof springs a leak in Mickey's efforts to catch the cat.

ARCTIC ANTICS

A Silly Symphony

Arctic explorers probably never even dreamed of such goings on among the polar bears, penguins, walruses, other animals and even fish. Each on his separate cake of ice, they give an entertaining dance. Then a walrus, led by a fish, cavorts over the ice and through the water as only they would in a Disney cartoon.

A squad of penguins parade in a quasi-military fashion to the tune of the "Parade of the Wooden Soldiers." A little fellow on the end of the line is the awkward member. While giving the leader lots of trouble he furnishes the audience lots of merriment.



Classified advertising

■ Cash required with order. The closing date for the receipt of copy is the tenth of the month preceding issue. Remittance to cover goods offered for sale in this department should be made to the advertiser and not to MOVIE MAKERS. New classified advertisers are requested to furnish references.

■ MOVIE MAKERS does not always examine the equipment or films offered for sale in CLASSIFIED ADVERTISING and cannot state whether these are new or used. Prospective purchasers should ascertain this fact from advertisers before buying.

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10 Cents a Word   Minimum Charge, $2

■ Words in capitals, except first word and name, 5 cents extra.

EQUIPMENT FOR SALE

■ BASS BARGAIN COUNTER: September bargains in profusion. Try and match these values. Cine-Kodak Model B, *f*/1.9 lens and case, like new, $59.50; Cine-Kodak Model B, *f*/1.9 lens and case, brown finish, fine condition, $55.00; Cine-Kodak Model K, *f*/1.9 lens, with case, like new, $75.00; Cine-Kodak Model B, *f*/3.5 lens, with case, like new, $32.50; Ensign Kinecam, *f*/2.6 lens, with case, $44.50; Cine-Kodak Model BB, *f*/1.9 lens, with case, like new, $46.50; Simplex Pockette, *f*/1.9 lens, like new, $72.50; Simplex Pockette, Model CC, *f*/2.8 Trioplan, focusing mount, $52.50; Stewart-Warner 16mm. *f*/3.5 lens, and case, $24.50; Stewart-Warner Buddy 8, *f*/3.5 lens, $16.50; Cine-Kodak Model 20, *f*/3.5 lens, with case, like new, $24.50; Keystone Model A, *f*/3.5 lens, $19.50; Filmo 70A, Cooke *f*/3.5 lens and case, $44.50; Filmo 70A, black finish, with 1" Wollensak *f*/1.5 lens and case, $67.50; Victor Model 5, with reverse, 1" Wollensak *f*/1.5 lens, $127.50; Victor Model 5, latest type, critical focuser and reverse, fitted with 1" Cine Wollensak *f*/3.5 lens, 1" Cine Wollensak *f*/1.5 lens, 3" Cine Wollensak *f*/3.3 lens, $164.50; Filmo Model 70C with spider turret fitted with 1" Cooke *f*/3.5, 1" Wollensak *f*/1.5, 3" Wollensak *f*/3.3 lens and deluxe case, $92.50; DeVry Model 47, spring and hand crank, *f*/3.5 lens, $24.50; Filmo 121, *f*/3.5 Cooke, like new, $52.50; Zeiss S-10 Kinamo. magazine loading, Zeiss Tessar *f*/2.7 lens, $22.50; 50 ft. Risdon camera, 16mm., *f*/3.5 lens, $52.50; 100 watt Keystone Model B-62, motor drive, $16.50; Kodascope Model 20 projector, 8mm., like new, $16.50; RCA sound on film projector, 100 watt bulb, with amplifier and speaker. $87.50; $650.00 Ampro S. O. F. projector, complete with amplifier, like new. $350.00; 200 watt Bell & Howell projector, Model 57, with case. $39.50; Bell & Howell Model 57 G projector, 250 watt, with case, $55.00; Bell & Howell Modifier for 1" *f*/3.5 lens, $4.50; 1" Stewart-Warner *f*/3.5 lens, $5.00; 6" Dallmeyer telephoto *f*/4.5, focusing A mount, $37.50; 6" Dallmeyer telephoto *f*/4.5, focusing C mount, $40.00; 3" Carl Zeiss Tessar *f*/3.5, special focusing A mount, $35.00; 3¾" Cooke *f*/3.3, C mount, $37.50; 6" Cooke *f*/5.5 telephoto, focusing C mount, $47.50; 4" Cooke telephoto *f*/4.5, focusing C mount and filter, $42.50; 2" Cooke *f*/3.5, focusing C mount, $30.00; 1" Cooke *f*/1.8, focusing A mount, old style, $24.50; 15 mm. Trioplan *f*/2.8, focusing C mount. $24.50; 15mm. Cine Velostigmat wide angle *f*/2.7, fixed focus C or A mount, $19.50; lot of 1" Cooke fixed focus A or C mounts, each $8.50; lot of 1" Special Cine Velostigmat *f*/3.5, fixed focus A or C mount, each $7.50; 78mm. Kodak telephoto for Cine K, each $27.50; 12½mm. *f*/1.9 lens for Keystone or Stewart-Warner 8mm., $25.50; 1½" telephoto *f*/3.5 lens for Keystone or Stewart-Warner 8mm., $22.50; Bell & Howell Character Title Writers, complete ready to use, each $12.50; a few left, Willo Cinemeters, with case, each $3.75; Eletrophot photo exposure meter, $5.50; Arri 16 Printer, new model, motor drive, $75.00. Write to America's leading cinema headquarters for latest Bass Bargaingram No. 224. BASS CAMERA COMPANY, Department CC, 179 W. Madison St., Chicago, Ill.

■ FULL LIST PRICE ALLOWANCE of $34.50 for your Model 20 8mm. Cine-Kodak toward the purchase of a new 8mm. Bell & Howell straight or double eight camera, or Model 60 Eastman Cine-Kodak. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ IF you have a Cine-Kodak K, *f*/1.9 lens and case in excellent condition, will take same and $50.00 additional in cash and ship you the new EASTMAN MAGAZINE LOADING CINE-KODAK with *f*/1.9 lens. List $125.00—brand new direct from factory stock. SUNNY SCHICK, National Brokers, Fort Wayne, Ind.

■ SELECTED 16mm. library films in excellent condition at 20 to 60 per cent discount; also bargains in equipment. J. B. HADAWAY, Swampscott, Mass.

■ BARGAINS: USED SOUNDFILM PROJECTORS, 16 and 35 mm.; sound heads; amplifiers; horns. Catalog mailed. S. O. S. CORP., 1600 Broadway, New York.

■ IT'S FREE! Latest catalogue on real bargains of 8mm. and 16mm. movie equipment. Write Now! ELDER, Dept. MS-5, Chelsea, Mass.

■ EASTMAN K *f*/3.5 camera with case, new. $70.00; Model B Cine-Kodak *f*/1.9, as is, $50.00; Simplex Pockette CC *f*/1.9 with case, new, $75.00; RCA 16mm. sound projector, 400 watt lamp, $100.00; S.V.E. Acme, as is, $15.00; Eyemo camera, *f*/2.5, as is, $75.00; Filmo 16mm. continuous attachment, old style. $15.00; Capitol Continuous Projector, as is, $25.00. All "as is" items in good condition. METROPOLITAN MOTION PICTURE CO., 1745 E. Grand Blvd., Detroit, Mich.

■ CINE-KODAK Special, latest model, brand new, never used, with *f*/1.9 lens, $275.00 cash. BOX 195, MOVIE MAKERS.

■ PROFESSIONAL UNIVERSAL 35mm. camera complete with automatic dissolve turret front; one triple masking finder; fitted wih *f*/3.5 B. & L. Tessar 50mm.; *f*/4.5 B. & L. Tessar 100mm.; *f*/1.9 Dallmeyer 75mm.; set of six masks and few filters; six 200 ft. magazines; complete automatic lock bolt universal tripod. All in carrying cases. Excellent condition. First check of $300.00 takes this bargain. SQUEO STUDIO, 283 Ocean Ave., Jersey City, N. J.

■ NEW 16mm. movie maker cameras, $3.25; 50 ft. reversal film, $1.75; cartoons. comedies, features. List free. MOORFIELD-SHANNON, Nutley, N. J.

■ ATTENTION! Lowest prices on 16mm. film and other movie equipment. Bargain Bulletin Free! ACME CINE SERVICE, Box 794, Lima, Ohio.

■ CINE-KODAK Special, tripod and case, like new and guaranteed perfect, with 1" *f*/1.9 and 3" *f*/4.5 lenses; complete with one extra 100 foot magazine, Mitchell type professional finder, five extra masks, Leitz range finder; specially built pigskin case to take outfit; list $700.00; will sell for $375.00. WILLIAM C. WOLF, 350 Madison Ave., New York City.

■ HAVE you received our camera, projector, laboratory equipment bargain bulletin? We buy, sell, exchange anything in the photographic, radio or sound field. What have you to exchange? O & W CINE ENTERPRISES, Inc., 149 W. 48th St., New York.

■ CENTRAL'S SUPER BARGAINS in USED MOVIE CAMERAS, PROJECTORS. All guaranteed perfect condition—sold on 10 day trial with satisfaction guaranteed or money back! 16 MILLIMETERS: $65.00 Simplex Pockette, Kodak *f*/3.5, special. $37.50; $150.00 Cine-Kodak B, Kodak *f*/1.9, $62.50; $70.00 Cine-Kodak B, Kodak *f*/3.5, $32.50; $125.00 Victor 3 (turret), Meyer *f*/2.9, $49.50; $178.00 Filmo 70-E. Velostigmat *f*/1.5, $112.50; $140.00 Filmo 70-A, Cooke *f*/3.5, $49.50; $22.50 Risdon, B & L. *f*/3.5, $11.50; $93.00 Zeiss Kinamo & case, Tessar *f*/2.7, $29.50; $35.00 Q. R. S. DeVry, Graf *f*/5.6, $7.50; $120.00 Cine-Kodak A, Kodak *f*/3.5, $23.50; $125.00 Ampro A, 400 watt, shopworn, $87.50; $413.00 Filmo 130, 1000 watt, shopworn, $372.00; $60.00 Kodascope C. 100 watt, used, $14.50; $180.00 Kodascope A, 250 watt, used. $32.50; $19.00 Excel, 100 watt, shopworn, $11.50; $39.50 Willoscope. 300 watt, used, $27.50; $175.00 Kodascope K. 200 watt, like new, $72.50; $35.00 Keystone, 100 watt, like new, $22.50. 35 MILLIMETERS: $150.00 DeVry & case, Velostigmat *f*/3.5, $42.50; $100.00 Zeiss Kinamo, Novar *f*/3.5, $9.75. 9 MILLIMETERS: $45.00 Pathescope, Trianar *f*/3.5, $9.75. 8 MILLIMETERS: $29.95 Keystone, Velostigmat *f*/3.5, $22.50; $75.00 Filmo Double 8, Cooke *f*/2.5, $52.50. 100 ft. 16mm. leader film and spool, 39c; Weston Model 650 meter, $14.75. Send postal for Central's new FREE money saving BARGAIN BOOK — just out — listing hundreds of new and used bargains in lenses, cameras, films, photographic supplies! Write Today! CENTRAL CAMERA CO., 230 S. Wabash, Dept. D 9, Chicago.

Start your summer reel with

a *LEAGUE LEADER!*

The League's animated leader is an attractive combination of clever, modern cine tricks that will make a dramatic introduction to your summer picture. It furnishes you with a convenient opportunity to focus and it will impress your audience because it is as full of effects as any theatrical trailer.

League leaders are available only to members of the Amateur Cinema League

16mm. leader 60c
8mm. leader 50c

AMATEUR CINEMA LEAGUE, Inc.
420 Lexington Ave., New York, N. Y.

■ BELL & HOWELL projector, S Model, 750 watt, 1000 ft. capacity, in case, almost new, $115.00; Bell & Howell projector, J. S. Model, geared rewind, 750 watt, volt meter, variable resistance, in case, perfect condition, $165.00; 35mm. Acme projector S.O.F., 1000 watt, 3000 ft. capacity, $195.00; Passion Play S.O.F., approx. 2200 ft. 16mm., new, $95.00. FRED BRYANT, Union Station Viaduct, Lexington, Ky.

■ PROJECTORS: 16mm. Victor 500 watt, Hi-power lens, deluxe case, list $132.00, price $65.00; 750 watt B & H 129B, with case, list $210.00, price $150.00; other bargains. Write J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

■ FOR SALE—20 Kolograph portable 35mm. sound motion picture outfits, used three months, splendid condition. For further information and prices, write THE PERFECT CIRCLE COMPANY, Hagerstown, Indiana.

■ USED BARGAINS: Zeiss Kinamo S 10 camera, *f*/2.7 Tessar lens. $27.50; Keystone Model A camera, *f*/3.5 lens, $20.00; Victor turret model camera, 1" *f*/3.5 Cooke lens, $65.00; Filmo Model 70 A camera, *f*/3.5 Cooke lens & case, $42.00; Filmo Model 75 camera, *f*/3.5 Cooke lens & case, $45.00; Filmo Model 70 D camera, 1" *f*/3.5 Cooke and 1" *f*/1.5 Wollensak lenses & case, $155.00; Cine-Kodak Model B, *f*/1.9 lens, $47.50; Filmo Straight Eight camera, *f*/2.5 Cooke lens, $40.00; Ampro Model A projector. 400 watt bulb & case, $67.50; Filmo projector Model 57, 250 watt bulb, variable resistance & ammeter & case, $47.50; Willoscope, Jr. projector, 200 watt bulb, $19.50; Keystone Model A 74 projector, 300 watt bulb, $24.50; Keystone Model A 78 projector, 500 watt bulb, $35.00; Victor Model 21 projector in self contained wood case, $115.00; Kodascope Model B, 200 watt bulb, $45.00; 6" *f*/4.5 Wollensak telephoto lens in foc. mt., $22.50; 3¾" *f*/3.3 Wollensak telephoto lens in foc. mt., $31.00; 2" *f*/3.3 Wollensak telephoto lens in foc. mt., $20.00; Craig Sr. tripod with tilt & pan top, $22.50; Hugo Meyer Correctoscope for Filmo 70 A, $7.50. WILLOUGHBYS, 110 W. 32nd St., New York.

EQUIPMENT WANTED

■ WANTED: 16mm. Library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK. National Broker, 402 W. Washington, Fort Wayne, Ind.

■ WANTED: cameras, films, projectors; trade for latest models or sell to us for CASH. BL. CAM. EX., 1451-M Broadway, New York.

FILMS FOR RENTAL OR SALE

■ 8 AND 16mm. films. Popeye, Betty Boop, Hal Roach "Our Gang" comedies and many other subjects. Catalogue free. EXCEL HOME MOVIES, 622 Madison Ave., Toledo, Ohio.

■ 8MM., 16MM., CARTOONS: Popeye, Mickey Mouse, Betty Boop, others. List free; state width. LINCOLN FILM SERVICE, Box 293-H, Saginaw. Mich.

FILMS FOR EXCHANGE

■ EXCHANGE — SILENT and SOUND ON FILM HIGH GRADE FEATURES, comedies, cartoons, etc. SILENT PICTURES, $1.00 per 400′ reel. Silent catalogue No. 26; sound catalogue No. 1 available. If you are particular and want QUALITY, we ask your patronage. CINE CLASSIC LIBRARY, 1041 Jefferson Ave., Brooklyn, N. Y.

■ FREE EXCHANGE: The following 16mm. s.o.f. features in A.1. condition have played our circuit. We will exchange without charge for other features or sell for $12.50 per reel. FOUND ALIVE 7. SHOP ANGEL 7. HIRED WIFE 7, FLAMING SIGNAL 7, FOURTH ALARM 7. We are also interested in buying used features. STEWART, 143 Hunter Ave., Trenton. N. J.

TRADING OFFERS

■ SHOTGUNS, TARGET PISTOLS, RIFLES, and guns of every description taken in trade at liberal allowances on all "still" and motion picture equipment; authorized representatives of Eastman, Bell & Howell. Victor. Zeiss. Leitz, Graflex, Weston, etc. NATIONAL CAMERA EXCHANGE, established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ AUTOMOBILE: Exchange, trade Victor projector 10 S, 250 volts, 500 watt, good as new, for smaller automobile, good condition (coupe, sedan). BOX 196. MOVIE MAKERS.

MISCELLANEOUS

■ 16MM. Printed Titles, ten words or less 25c; each additional word 2½c. Samples free. MIDWEST SERVICE, 1024 Quincy, Topeka, Kansas.

Printed by WNU. New York

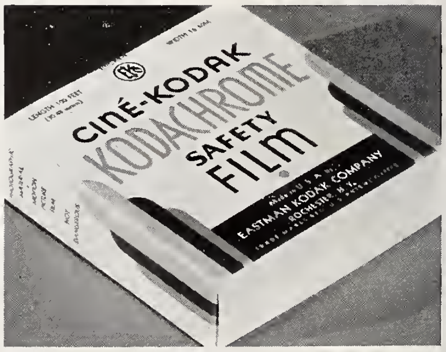
YOU have yet to realize one of the keenest thrills of picture making if you have not made and seen your first sunset in Kodachrome. For here, indeed, is a subject that loses none of its grandeur when reproduced on a colored rectangle against the darkened background of your living-room.

Soon, with the coming of fall, there will be a quickening of indoor activities — and Kodachrome keeps pace. For 8 mm. filmers, there's an inexpensive filter lending correct color balance under artificial light; for 16 mm. movie makers, Kodachrome, Type A—introduced for the specific purpose of full color filming under Mazda Photofloods. Needing no filter, it requires less light, reproduces colors with amazing faithfulness.

Add color—with Kodachrome . . . outdoors and in. For Kodachrome is a year 'round film for year 'round enjoyment. Eastman Kodak Company, Rochester, N. Y.

●

PRICES: 16 mm. Kodachrome, both regular and Type A—50-foot rolls, $4.75; 100-foot rolls, $9.00; 200-foot rolls, $18.00; 50-foot magazines, $5.00.



Ciné-Kodak Eight Kodachrome, $3.75 per roll. All of the above prices include processing at Hollywood, Chicago, or Rochester, N. Y.

MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

OCTOBER, 1936

25c

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■ **Words in capitals, except first word and name, 5 cents extra.**

EQUIPMENT FOR SALE

■ BASS BARGAIN COUNTER: Bass world-wide trade-ins means unusual variety in fine equipment. You save money—we guarantee satisfaction or your money back. Bell & Howell Filmo 70C fitted with custom built four lens turret; lenses are 15mm. Goerz Hypar f/2.7, 25mm. Carl Zeiss Tessar f/2.7, 3" Carl Zeiss Tessar f/3.5, 4" Goerz Dogmar f/4.5 with filters and special case; an unusual bargain at only $145.00. Bell & Howell 70C Filmo fitted with 20mm. Cooke f/3.5, 1" Wollensak f/1.5, 3" Wollensak f/3.3 and case at $77.50; Cine-Kodak Model B, f/1.9 lens and case, fine condition, $55.00; Cine-Kodak Model K, f/1.9 lens, with case, like new, $75.00; Simplex Pockette, f/1.9 lens, fine condition, $62.50; Cine-Kodak Model BB, f/1.9 lens and case, $42.50; Bell & Howell Filmo Model 70D, 15mm. Goerz Hypar f/2.7, 1" Cooke f/1.8, 3" Cooke f/3.5 and case, $164.50; Victor Model 5, with reverse, 1" Wollensak f/1.5 lens, $127.50; Victor Model 5, latest type, critical focuser and reverse, fitted with 1" Cine Wollensak f/3.5 lens, 1" Cine Wollensak f/1.5 lens, 3" Cine Wollensak f/3.3 lens, $164.50; Filmo 121, magazine camera, f/3.5 Cooke lens, like new, $52.50; Filmo 70A, Cooke f/3.5 lens and case, $44.50; new Keystone Model A-3, three speed, with f/3.5 lens at $27.95; Stewart-Warner Buddy 8, f/3.5 lens, $16.50; Cine-Kodak Model 20, f/3.5 lens, with case, like new, $24.50; Kodascope Model A 16mm. projector, $39.50; Ampro Model AS with 1600 ft. takeup, 250 watt, 30 volt bulb, complete with case, $62.50; Ampro Model A, demonstrator, 400 watt bulb and case, $75.00; 100 watt Keystone motor drive projector, $14.50; 15mm. Goerz Hypar f/2.7 lens, C focusing mount, $30.00; 4" Goerz Dogmar f/4 lens, C mount, $32.50; 3¾" Cooke f/3.3, C mount, $37.50; 4" Cooke telephoto f/4.5, focusing C mount and filter. $42.50; 1" Cooke, new type f/1.8, focusing C mount, $37.50; 15mm. Cine Velostigmat wide angle f/2.7, fixed focus C or A mount, $19.50; 1" new Cine Velostigmat f/1.5, focusing A or C mount, $30.00; 78mm. Kodak telephoto for Cine K at $27.50; 12½mm. f/1.9 lens for Keystone or Stewart-Warner 8mm., $25.50; 1½" telephoto f/3.5 lens for Keystone or Stewart-Warner 8mm., $22.50; adapter coupling for all Leica lenses on any standard 16mm. cine camera, $3.25; new lot latest type Arri 16 Motor Drive Printers at only $67.50 each. Bass Bargaingrams are the Blue Book of values. Write for your free copy. BASS CAMERA COMPANY, Dept. CC, 179 W. Madison St., Chicago, Ill.

■ SELECTED 16mm. library films in excellent condition at 20 to 60 per cent discount; also bargains in equipment. J. B. HADAWAY, Swampscott, Mass.

■ IF you have a Cine-Kodak K, f/1.9 lens and case in excellent condition, will take same and $50.00 additional in cash and ship you the new EASTMAN MAGAZINE LOADING CINE-KODAK with f/1.9 lens. List $125.00—brand new direct from factory stock. SUNNY SCHICK, National Brokers, Fort Wayne, Ind.

■ FOR SALE: Cine-Kodak 60, 8mm., with carrying case, like new, $62.50. BOX 197, MOVIE MAKERS.

■ B&H 70E, Cooke f/1.8 lens, case, $95.00 complete; fine condition; factory guarantee. E. T. CONRAN, 201 Varick St., N. Y. C.

■ IT'S FREE: Latest catalogue on real bargains of 8mm. and 16mm. movie equipment. Write Now! ELDER, Dept. MO-10, Chelsea, Mass.

■ CINE-KODAK MAGAZINE CAMERA, f/1.9 lens with deluxe case; used only once, guaranteed; sacrifice $85.00. Cine-Kodak Model B, f/1.9 lens and case, $57.50; Victor projector, Model 10, 500 watt, deluxe case, like new, special $65.00; new 8mm. and 16mm. films; send for catalogues. HOLLYWOOD CINE FILM DISTRIBUTORS, 1431-33 No. Highland, Hollywood, Calif.

■ TITLE your own films with the SILVER TITLE OUTFIT, using any reversal film; silver ribbon and black matte cards complete. $2.00; give make of typewriter and titler. G. B. CINE SERVICE, 1771 E. 12th, Cleveland, Ohio.

■ EASTMAN Model 60, 8mm., f/1.9 lens, filter and case; Model 80, 8mm. Kodascope, 300 watt, with case; practically new; sacrifice both $129.50. GORDON ZELLERS, 3269 Fairmount Blvd., Cleveland Heights, Ohio.

■ CAMERA, Eastman Special, 1" f/1.9 and 15mm. f/2.7 lenses, extra 100 foot magazine, list $478.00, price $325.00; Keystone Model B63, 300 watt, case, $20.00; Kodascope Model C, 100 watt. $12.50; FILMO 400 watt 8mm., case, new, $90.00; B&H model 121 16mm. camera, f/2.5 focusing lens, case, list $95.00, demonstrator, $75.00; RCA 16mm. sound camera and case, cost $222.00, price $175.00; Model 129 Filmo, 750 watts and case, cost $185.00, price $115.00. J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

■ FIFTY-FIVE DOLLARS and your Model B Cine-Kodak f/1.9 or FORTY-FOUR DOLLARS and your Model K f/1.9 will buy a new Magazine Cine-Kodak; very liberal allowance for your present projector on a new Bell & Howell FILMOSOUND, now only $450.00; it will pay you to write us for quotations and trade-in allowances before purchasing any new equipment. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ MOVIE cameras, 35mm. or 16mm., accepted for Welta still cameras (Leica-Contax size). Liberal allowances, write fully. BURKE & JAMES, INC., 223 W. Madison St., Chicago.

■ LOOK! Almost new 500 watt projectors—Keystone A-78, $34.50; new 500 watt Willo, $25.50. CINE PICTURE SERVICE, Box 94, McGaheysville, Virginia.

■ VICTOR Model 5 reverse action camera, used but in No. 1 condition, 1" f/3.5 focusing Velostigmat lens, No. 5 carrying case, $110.00; used Victor Model 5 reverse action camera, fine condition, 1" f/1.5 Dallmeyer focusing lens, No. 5 carrying case, $135.00; used 3¾" f/3.3 focusing Dallmeyer lens for Victor camera, condition perfect, $27.00; 16mm. Correx Developing System, $15.00; slightly used 16mm. Stineman Developing System consisting of 3 reels, screen, 3 nesting tanks and special built washing tank, list price $150.00, price $60.00; several rolls Dupont 16mm. panchromatic and super-pan negative, date expired, $1.00 per roll; DuMorr Radial Wipe for Cine-Kodak Special, $15.00; all prepaid in U. S. A. CARL HOLMES COMPANY, 1101 West 4th St., Davenport, Iowa.

■ USED BARGAINS: Keystone 8mm. camera, f/3.5 lens, $18.50; B. & H. Filmo Model 121, Cooke f/1.5 lens, $65.00; B. & H. Filmo Straight 8, Cooke f/2.5 lens, $41.50; Simplex Pockette, Model CC, f/1.9 lens, $63.50; Simplex Pockette, Model C, f/3.5 lens, $35.00; B. & H. Filmo Model 121, Cooke f/2.7 lens, $50.00; B. & H. Filmo Model 70D, with 1" f/3.5 Cooke, 1" f/1.5 Meyer Plasmat, 4" f/4 Dallmeyer in case, $165.00; Victor Model 3 with f/3.5 lens, black finish, $39.00; Victor Turret Model Camera. f/3.5 lens, black finish, $62.50; B. & H. Filmo Model 75 camera, f/3.5 lens, $45.00; Keystone Model A 7 camera, f/1.5 lens, $30.50; Willoscope Sr. projector, 300 watt bulb, $27.00; Ampro Model JS projector, 500 watt bulb & case, $94.50; Kodascope Model B, 250 watt bulb, $59.50; Keystone Model A74 projector, 300 watt bulb, $19.50; Simplex Casette projector in case, $35.00; Ampro Model AS projector, 400 watt & case, $69.50; Stewart-Warner 8mm. projector, $19.00; Trac Bloc letter titling outfit, $1.00; B. & H. Character Title Writer, $15.00; Willo No. 1175 tripod with panrite tilt & pan top, $11.75; B. & H. Filmador for storing 3-400 ft. reels, $2.75. WILLOUGHBYS, 110 W. 32nd St., New York.

OCTOBER 15th

is the last day for entries for MOVIE MAKERS selection of the

1936 TEN BEST

Send your best picture to MOVIE MAKERS today so that it may be considered for the greatest honor offered amateur filmers.

Your summer footage may be better than you think. Don't be too modest about your movie making ability! Send us your best film completed (edited and titled in final form) between October 31st, 1935, and October 15th, 1936, and see how it rates!

All pictures must be received by October 15th. Films will be returned promptly after they are examined. Submitting a film for Ten Best consideration puts you under no obligation whatever.

MOVIE MAKERS
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MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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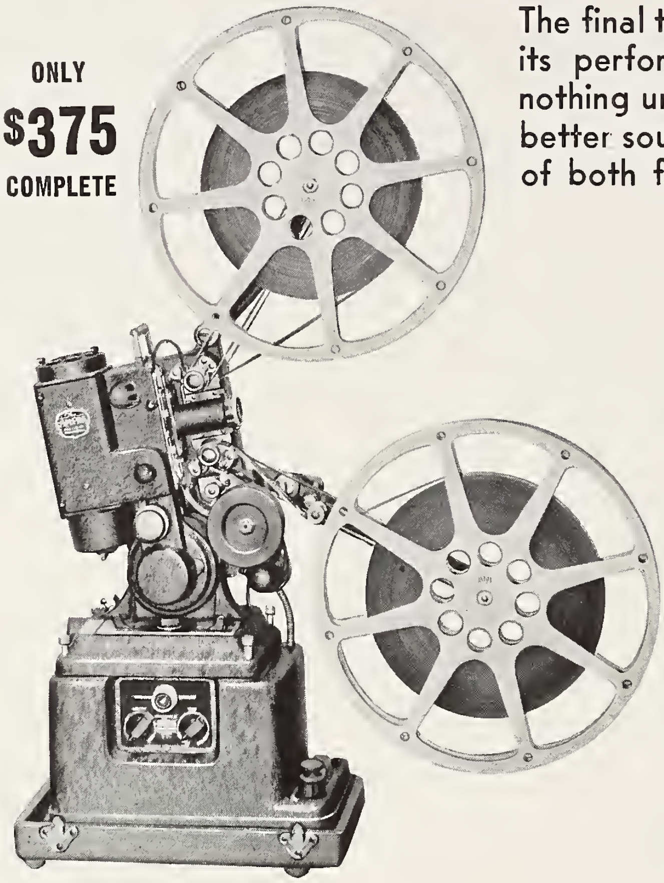

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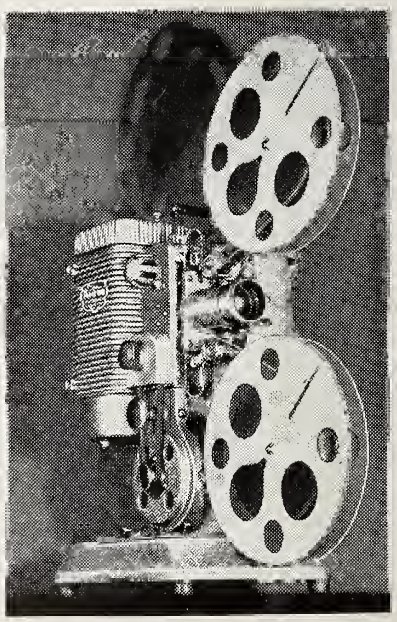

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Closeups

All of a sudden, after quite a lull in that phase of League activity, three requests for filming cooperation between one member and another have come piling in to headquarters in one day. Here, itemized, is what's wanted: (1) approximately fifty feet of 16mm. Kodachrome of Williamsburg, Va., by Warren D. Matthews, ACL; (2) a specific series of six shots, in 16mm. color and monochrome, in Williamsburg, Va., and in Washington, D. C., by C. A. Starkweather, ACL; (3) a modest record in 16mm. Kodachrome of the San Diego Fair, by George R. Bradley, ACL. Each request, of course, has been accompanied by assurances that film and all incidental expenses will be repaid by the League member requesting the cooperation. Offers of assistance on any of these calls for help should be addressed to the member in question in care of the League office.

It seems we were all wrong when, a couple of months ago, we referred in this department to "the cold gray waters off the coast of Cornwall." Ernest H. Burris, of Bristol, England, long a reader of this magazine, was the one who set us straight in a friendly letter—and we are glad of it indeed. "Cornwall," he writes, "has two different coasts, one on the north, one on the south . . . The north coast is swept by the Atlantic Ocean and a portion of the south coast by the English Channel. On neither coast could you possibly call the waters grey and cold." In good weather, says Mr. Burris, "one finds the most gorgeous blues, greens and translucent colors in the water it is possible to obtain anywhere." Well, our only idea in the earlier note was to suggest that Cornwall was a paradise for color filming, so this makes it one hundred percent perfect.

A long letter from Syd. A. Brydon, of Tokomaru Bay, New Zealand, brings us a deal of news of his filming, but what we liked best in the friendly discussion was toward the end: "You may be interested to know that in this little country place, by the Pacific Ocean, we have our talkies; this month they are showing that great color picture, *Becky Sharp.* But all here are more interested in those cowboy dramas than any other subjects. They easily get excited and make a lot of noise." We tried to find Tokomaru Bay on a big map of New Zealand, thinking it would be fun to look at a place which easily got excited and still made a lot of noise over America's first contribution to motion pictures. But, after five minutes' search, the little place by the Pacific Ocean was still as unknown as a cowboy drama on today's Broadway, so we had to give up.

The AMATEUR CINEMA LEAGUE, Inc.

whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

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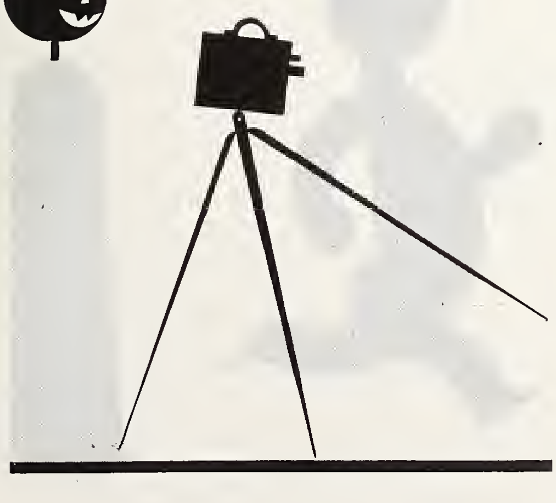


A birthday party

EACH member of the Amateur Cinema League has received an invitation for himself and his guests to a dinner that will, on the twenty third of this month, celebrate the tenth year of the League's life and service. Preceding dinner, guests may inspect an interesting historical exhibit of cameras, projectors and films that have served amateurs for more than a decade; following dinner and a number of brief addresses, a résumé of amateur accomplishment will be presented in film.

While the League has never before made an attempt to assemble any of its members, except for the formal annual meetings of the corporation, the officers and directors of our organization believed that the occasion of a tenth anniversary should not be allowed to pass without a gathering of the clan. In all likelihood, this coming together of League members will be largely restricted to those living in the neighborhood of the international headquarters in New York City. All members, however, are bidden, and those who come will do so at their own expense, as members will pay for their tickets and those of their guests. Therefore, members in distant lands will not be dealt with unfairly, nor will League funds be wasted to provide New York members with a free dinner.

Those at League headquarters who have undertaken the responsibility of assembling the historical exhibit of equipment have been amazed at the impressive list of items that have been placed before amateurs in the last ten years. Not all of these—indeed not even a larger fraction of them—can be included in the exhibit, nor can the exhibit include anything except cameras, projectors and films—the major cinematic tools. Truly, this new activity has grown by leaps and bounds in a short time. If movie amateurs had not been able to accomplish an impressive work—and all the evidence indicates that they most decidedly have accomplished it—they could not have laid the blame upon a lack of equipment. In this field, at least, modern industry has performed its service to art in a most generous fashion.

In going over the ten years of personal filming, the headquarters personnel who have in their charge the preparation of the pictures to be shown have also been amazed at the wealth of material from which to assemble what will be screened. Movie amateurs have pretty much ranged over the whole of life in their cine recordings. Their invention has matched that of the industry that has supplied the equipment. The two parts of the task have been well handled.

This birthday party will serve as a kind of visible and tangible stock taking in personal filming. It is not designed to make any money for the organization. It is only a gathering together at mutual expense to see how far we all have come in a decade. Amateurs will see what kind of persons the other fellows are; they will review what basic tools have been provided and will see what has been done with those tools. The League members who cannot come in person will, it may be depended upon, be present in spirit in this first general assembly of personal filmers.

R. I. Nesmith and Associates

This fall scene probably would be filmed at *f*/8 or *f*/11, which would mean that a fade produced by closing down the diaphragm to the smallest stop would be unsatisfactory. However, a fading glass, a vignetter or any of the many other methods discussed opposite would turn the trick.

MOVIE MAKERS

Making fades

KENNETH F. SPACE, ACL

ALTHOUGH most movie makers do not realize it, fades of truly theatrical quality may be made with the simplest of cameras and at practically no expense. Not only can fades be made easily with any camera, 8mm. or 16mm., but also they can be produced in a great variety of ways. This is important because there is scarcely a film that could not be improved materially by the judicious use of fades to separate unrelated sequences, indicate time lapses or to end the reel.

Fades made before the film is processed may be grouped into three classes: those obtained through manipulation of the camera alone, those which require attachments or equipment near or on the camera and those produced by more remote means, such as lighting.

To simplify, let us outline the individual methods:

1. Camera manipulation.

(a) Diaphragm: The easiest way to fade out is to close the diaphragm to its smallest aperture (*f*/16 or *f*/22) at the end of the scene. If the light is dull, requiring a normal exposure of *f*/2.8 or *f*/3.5 for example, this closing down will give almost a complete fade out, but it is advisable to cover the lens completely with one's hand just after the diaphragm has been closed. This will make it certain that the scene is blocked out completely. If the scene is intensely bright, requiring a stop of *f*/11 or *f*/16, this method of course cannot be used, as the scene would be darkened only a slight amount. If one is working indoors, the lighting can be arranged to require an exposure of *f*/1.9 or *f*/3.5, which makes this method entirely practical.

(b) Camera speed: Many of the less expensive cameras have double and slow motion speeds which are controlled by a revolving button. If the directions with the camera indicate that speeds may be obtained in between those shown on the dial, you can obtain a fade with this aid. If the scene is being filmed at a medium aperture (*f*/5.6), twist the speed button rapidly to the extreme slow motion mark. This must be done as quickly as possible, since we do not want the audience to realize that the motion in the scene is slowing up and since, at the higher speed, more film is used a second than we need. The fade out is produced, of course, because the increased speed requires more exposure, which is not given, since the diaphragm is not opened up.

2. Attachments.

(a) Commercial: There are at least two fade out devices commercially available—the vignetter and the fading glass. The vignetter works as an extra diaphragm in front of the lens and, as it closes down, a separate fin, or flap, entirely blocks out the scene. The fading glass is a glass slide that has been darkened progressively from clear glass at one end to opaque black at the other and, by sliding the glass in a holder across the lens, a fade out is obtained.

(b) Smoked glass: A homemade substitute for a fading glass can be produced by cutting a strip of thin lantern slide glass about an inch wide and smoking it by holding it over a candle flame so that, at one end, there is a heavy layer of soot that is lighter in the middle and blended to clear glass at the other end. This glass must be handled carefully, or the soot will rub off. However, the device may be made permanent by dipping it in clear shellac or covering it with another glass to protect the surface.

(c) Dyed celluloid: Another similar method consists of using a piece of clear cut film, which has been fixed but not developed, and some black dye that will affect the gelatin. The strip is dipped a number of times into the dye, leaving a clear area at the top. Each time the dipping is done, less of the strip is lowered into the dye until, at the last dip, the strip has been darkened progressively to black.

(d) Black card: A far simpler fade out is accomplished merely by holding a black card just below the lens. When the fade out is desired, bring the card slowly up and across the lens, pressing it against the lens shade, which brings it so close to the lens that it is out of focus. Instead of using the straight edge, a long, deep V can be cut in the card. Then, if the open end of the V is pushed up first, the fade out will begin on the sides of the picture as well as at the bottom. A still further variation is to use two V cards and bring one down from the top at the same time as the other is brought up from the bottom. Make sure that the points of the V's meet and cross to complete the fade out as nearly as possible in front of the center of the lens. To make this fade softer in appearance, it is only necessary to cut small teeth or jagged edges in the parts of the black card that cross the lens field.

A soft effect may be obtained by using a blotter instead of a card. The V edge may be roughened by pulling out pieces of the blotter along the sides of the V which will cross the lens field.

(e) Gauze: A method of making a fade, first used some years ago in the South Sea picture, *White Shadows*, consists of dropping a series of thin black gauzes before the lens to darken the scene gradually. The amateur can duplicate this with about twelve layers of very fine black silk which has been fastened along one edge of a strip of wood. This is held above the lens so that one layer at a time may be dropped down.

(f) Liquid: A novel fade out may be obtained with a piece of thin glass or film and a medicine dropper full of black paint or any other black, fairly thick

[Continued on page 449]

Many suggestions for this device with simple tools

Building lead titles

JAMES W. MOORE, ACL

What belongs in a good lead title assembly is shown

"WHAT," asked the League member, "can I properly put in my lead titles and how should I put it?" The continuity consultant took a deep breath and explained what seemed to him the fundamental precepts of good treatment. If you had been sitting there in the projection room, you would have heard something like this . . .

Well, first of all, let's get our understanding of terms clear. When I speak of a *lead title assembly*, I shall be referring to the entire series of individual title cards which may make up the introduction to a film. Depending on the type of picture under consideration, this series may run from two to four, five or even six units. For ready reference to these units, we will call the card carrying the name of the film the *main title*, while all the others we will group under the heading, *credit titles*.

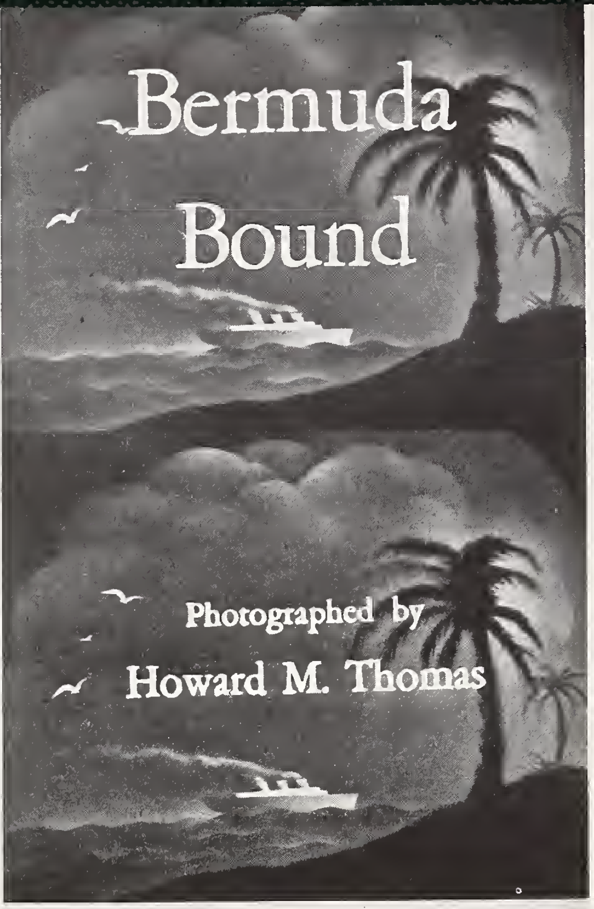
Now, I think you'll agree that the most common type of amateur film is the personally made record of this, that or the other topic which has interested the movie maker. Being personal records, these films concern themselves with many different subjects, but they all represent the photographic work of one man. Since this is the case, it seems logical to assume that the subject matter of the film, and not the identity of its maker, will be the first concern of future audiences.

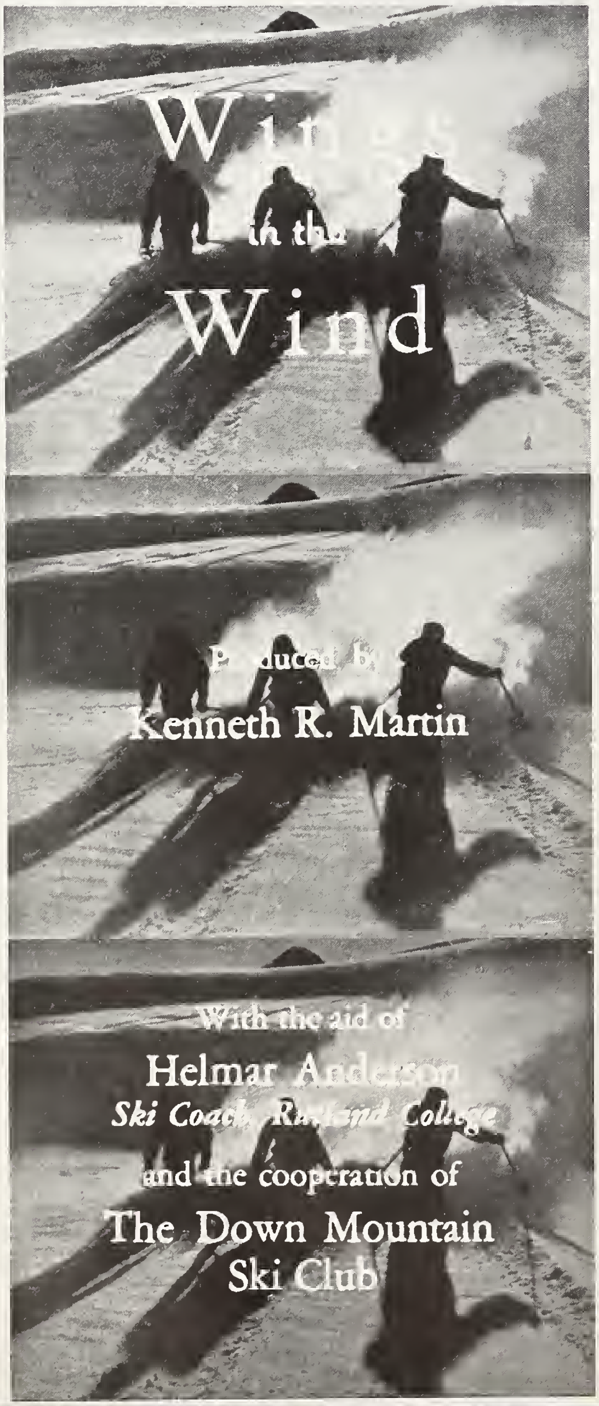
With this in mind, we come to our first precept of good lead titling. On all personally made pictures, it is desirable to carry the name of the film first and the name of its maker afterward. Thus, in the simple example here illustrated, we find the main title, *Bermuda Bound*, appearing first on the screen. It is presented on a simple pictorial background designed in harmony with the subject, but the use of such backgrounds is in no sense necessary. With the subject established, the movie maker is quite justified in inserting a credit title which states that he was the cameraman. For the smoothest effect, the main title should dissolve into this credit title, but a straight cut will serve nearly as well. To fade out and in between these two titles seems a bit out of place, even if the fades are very short.

In our example we have worded the credit title to read in the simplest and, what seems to us, the best style for the straight personal credit: *Photographed by Howard M. Thomas*. There are a few simple alternatives which strike us as in equal good taste and which you may like better: *Photography by Howard M. Thomas* or *Filmed by Howard M. Thomas*. Again, if you find yourself with an adaptable name and the liking for a lighter treatment, it has never seemed out of line to invent and use a cine signature. Mr. Thomas might be known by his circle of friends as "Tommy" and he might have chosen to identify all his pictures with the signature phrase, *A Tommygram*.

There are a number of types of phrasings, however, which do not seem in the best taste for the personal credit on a personally made film. Of these undesirables, *Produced by Howard M. Thomas* is perhaps the type most often used and it is the least out of place. Our objection to it here stems simply from the fact that it seems to imply complete advance planning and the cooperation of one or more others with the cameraman in making the film. In our second example on this page, you will note that "produced by" has been used, but justified, we believe, by the fact that the ski coach and the sports club cooperated with the cameraman. Among the other objectionable phrasings which we cannot justify on any score are: *An H. M. Thomas Production, From the Camera of H. M. Thomas* or *Howard M. Thomas Presents*. We feel sure that the first two need no discussion to show that they are pompous and pretentious. The weakness of the third lies in the fact that it predicates the placement of one's credit title before the main title, which, in personally made pictures, we have agreed seems out of line.

So much for films made simply by one cameraman. There are countless others these days which have been made cooperatively in one degree or another. With these, there are more complex titling problems and, of course, more leeway in one's methods of solving them. Let's discuss first the position of Kenneth R. [Continued on page 445]





Two title assemblies illustrating good practice and taste

Will your films last?

FREDERICK G. BEACH, ACL

A sane discussion about their care and preservation

"MY movie records are priceless to me. How can I be sure that the film will not deteriorate?"

The League has been asked this question many times, and thousands of movie makers who have never brought up the problem directly have doubtless wondered about it on one occasion or another. The issue has been confused in the past by statements from allegedly disinterested but uninformed sources. Some amateurs have been needlessly worried by ridiculous and entirely unfounded statements presented in the guise of "inside scientific dope." However, those who have really done some work in investigating this question have not had their day in court. The League has felt that it was the logical agency to present the latest findings on the qualities of permanence of non inflammable cine film and, in order to do so, has collected reports on film life from every possible source.

The one important fact that stands out above all others is that the ultimate length of life of non inflammable cine film is an unknown quantity. Films made with the very first 16mm. cameras are today in perfect condition. How long they will last in the future is something that can be proved conclusively only in decades or centuries to come. Those who have handled this film from its first introduction feel that, with proper care, it will last indefinitely. Thousands of feet of film which was manufactured and processed before 1922 have been reported as undamaged by time or projection. On innumerable occasions, the League has received data concerning the perfect condition of films that have been stored for periods varying from ten to fifteen years.

From some quarters has come the opinion that film shrinkage is a serious fault. The idea has been expressed that shrinkage is directly related to the age of the film, increasing progressively with the passage of the years. This very naturally leads to the supposition that, in time, the shrinkage of the film will exceed the tolerances provided on projectors (about two percent), with the result that there will be difficulty in projecting the pictures. In view of this theory, the result of the careful measurement of the amount of shrinkage on more than 800 rolls of 8mm. and 16mm. film, varying in age from a few months to more than fourteen years, should be considered.

The vast majority of the films had been stored, since processing, in a dry, steam heated room and had received no attention whatsoever. The measurements were made in March and April so that the films would be in their driest condition, the steam heat having been on for about six months. Other films in the number tested had been stored in private homes under average conditions, some having been given no attention at all and some having had slight humidification. The amount of shrinkage on all the films varied from .1 percent to a maximum of 1.2 percent, the average being .86 per cent. There appeared to be no definite relationship between the age of the film and the amount of shrinkage, and it is interesting to note that the maximum shrinkage was found not only in the older films but also in films of less than one year of age. There was no indication of any progressive increase in shrinkage with age; on the contrary, the amount of shrinkage depended more upon the humidity at the time the measurements were made than on the age of the film—the higher the humidity, the lower the shrinkage. The 8mm. films showed about the same amount of shrinkage as 16mm. film. It is evident that the maximum amount of shrinkage that occurs in films stored with no care whatever in the average home is well within the range of projector tolerance. In nearly all cases when amateurs have reported that film "had shrunk too much to run through the projector," it has been found that there was a faulty projector adjustment or that the projector had worn.

Physical wear presents far more of a problem in the matter of film preservation than does shrinkage. Tests indicate that the average 16mm. film can be run well over a thousand times in a properly cleaned and adjusted projector before wear is evident. Several thousand projections would not be unusual under average conditions, and this is many times the number of screenings that most movie makers would undertake to give one cine film during a lifetime. Of course, such extreme uses as continuous projection will reduce the life of the film a great deal. Not only will the extra mechanism necessary in such projectors cause greater wear but also the constant heat of the lamp will tend to produce [Continued on page 437]

Precious scenes like this have been preserved on 16mm. films for over fourteen years

Charles J. Carbonaro, ACL

If you meet a moose

ORMAL I. SPRUNGMAN, ACL

Cine adventures in filming large northern animals

I WAS sitting quietly in our Lake Ritchie blind, watching one of the juvenile members of Isle Royale's giant moose herd cavorting about on the mainland not a hundred feet across the channel from our island camp. The young calf was pacing back and forth like a circus lion in a gilt covered cage. Occasionally he would sniff the water, glancing frequently in the direction of an unusually succulent piece of canvas which happened to be our tent.

Suddenly he froze in his tracks and, pointing his young ears skyward, looked back over his shoulder into the forest greenery. I strained my eyes, but I failed to see anything. Shortly I heard the crackle of twigs underfoot, and a giant bull, trailed by a cow, emerged from the background and started splashing and bobbing for lily roots in an adjoining cove.

The young fellow eyed his elders for a while, then plunged bodily into the channel and began swimming straight as an arrow for my blind. For a second or two I was so ham swoggled that I didn't know what I was doing. Besides, who ever heard of a moose climbing right into your lens? Moose just weren't supposed to do that.

Ormal I. Sprungman, ACL

I checked exposure and distance quickly and cussed myself for already having snapped on the three inch telephoto in a moment like this. It was lucky I had a tripod because I will admit having some pretty severe complications of shake fever.

It took some time for the little fellow to kick his matchlike legs through the water. When his head started to fill the finder and he picked up the purr of a spring driven camera, I had the sickening sensation of discovering that the motor was running down. I snatched it off the tripod, ducked down out of sight and hurriedly cranked it up. When I rose to my usual position in the blind, I noticed something eclipsing the sun, and here was that little calf, dripping with water, looking right into my blind.

Laurence Critchell, jr., ACL

Do you use a blind when you are filming wild life in the north woods? Shooting in the open, like the movie maker here, the author caught the scene shown in the frame enlargement above.

I trained the camera on him, but, with the telephoto lens, the biggest view that I could get was a closeup of an eye or ear. I figured that was no way to take wild life movies. Both of us stood there goggle eyed for a moment, then I "phooshed," and the calf switched ends and started back across the channel. I resumed my shooting.

When I got back to the tent, I was sort of breathless and white around the gills.

Our three weeks' rendezvous on Isle Royale with the world's largest moose herd was packed with movie making thrills. When we first reached the island after sailing up from Duluth, Minnesota, over Lake Superior (which, incidentally, provided us with some excellent introductory scenics), we made the acquaintance of a native fisherman and set up our tent within an easy hike from his shack.

One day he persuaded us to ride up Rock Harbor in his gas boat to an abandoned copper mine where moose were supposed to congregate each night. The sun was sinking fast by the time we reached the spot. Stopping our motor, we rowed noiselessly toward shore, but not one moose was in sight. We landed and explored the mossy mining shafts and crumbled stone walls. A tiny stream of water, containing copper sulphate, drained one of the shafts, and it was here that moose came down to drink. There were tracks of immense size in the mud beside the stream.

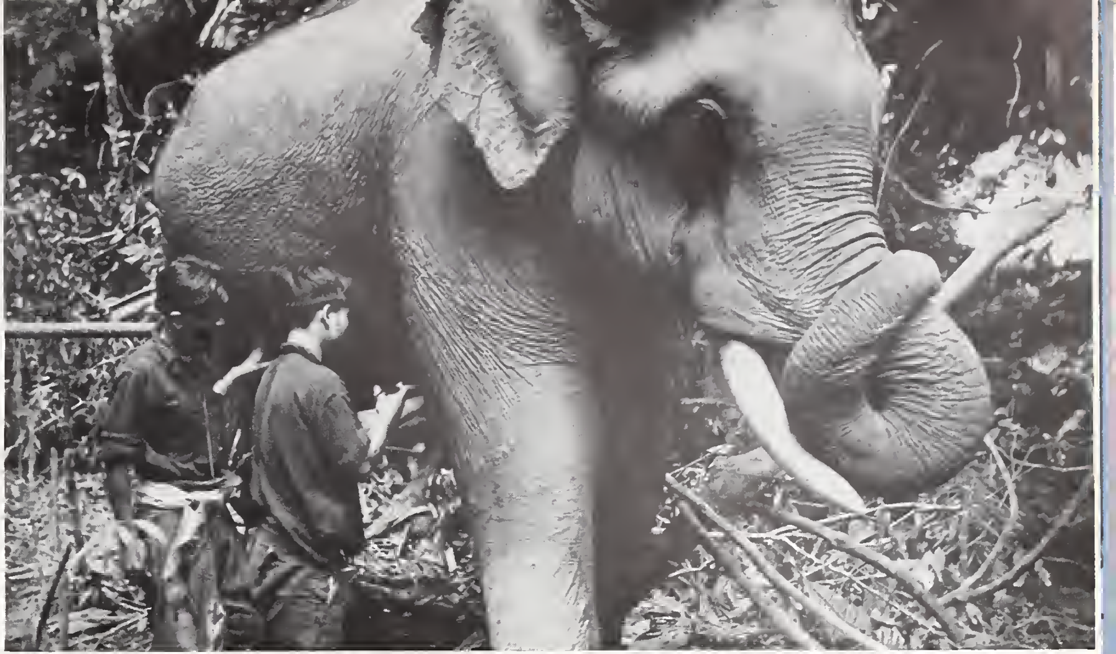
We returned to the gas boat, anchored only a few feet out in the harbor and waited while mosquitoes and deer flies zoomed merrily about us. But our wait was not long. Far back in the foliage we could see little telltale patches of grey moving toward us. The grey belongs to the legs of a moose and may be seen long before the bulky carcass comes into view. Leisurely, the cow ambled into the open and then stopped atop a knoll and looked down on us. The three of us sat tight.

For nearly a minute she stood there trying to make sense out of what she saw, then dropped her head and strolled over to the salt lick stream where she began lapping up water. Our movie camera, loaded with supersensitive panchromatic film, quickly swung into action. The sun already had set and only an afterglow remained in the sky. The background against which we were photographing was dim and poorly lighted, and we shot with fingers crossed.

While we were filming, a bull with a pretty horn spread came up over the hill and gazed down at the cow. Despite the fact that we were filming right out in the open, neither animal paid any attention to us. Instead, the cow turned her head to the rear and then resumed her drinking as the bull came down to her side. The actions were as natural as life itself. Even the hum of the motor failed to disturb the pair.

At our Lake Ritchie camp site, moose were even more plentiful than

[Continued on page 441]



A mahout medicates his elephant, shot in a Siamese reel

Andre Goenaga, ACL

A camera in the forest

A jungle filmer has suggestions about tree shots

ANDRE GOENAGA, ACL

TO remain weeks and months confined in a lumber camp of the Northern Siamese jungle, until one has a feeling of being actually walled away from the civilized world by the gigantic green mass of forest, certainly would be depressing if one did not have a cine camera.

The camera in this solitude becomes a sort of Aladdin's lamp. It opens the great wall of the forest, and then you find that you have stepped into a fairy book world. You find, hidden in the depths of the timber, a great variety of interesting things that you never would have discovered, or even thought of, without the camera.

Life is everywhere. It crawls, it stirs, it grows out of death in an everlasting metamorphosis. There is no beginning or end, so intense and various is the evolution between life and death. On the very spot where the dying tree is already decaying into earth, fruits fall to the ground, plants are growing, flowers are blooming and new leaves are replacing the dead ones.

The tropical forest is full of dramas, which may last a second or a century. There is the liana, which slowly but fatally encircles the tree, and there is the giant of the forest struck by lightning.

Any film of the forest is full of life, even if you do not shoot its animal inhabitants. The air bears life in the wind, in the heat and in the light: sparkles of light gather on the rivulet like a shower of diamonds and then vanish, to reappear further on in a multitude of pearls hanging on the tips of the leaves—all according to the whim of a breeze high up in the lace of branches which sweep the sky.

Through the study of light, you can compose an infinite number of pictures with but one group of trees. Morning and evening, brilliant sunlight and rain will give as many different moods for the same picture. I saw once an amateur film with a cocoanut tree as the *leit motiv*. It appeared in a different light each time it introduced a new episode in the story.

My first aim, when I arrived in the jungle, was to secure a complete record of my work—felling and hauling out teak trees, which is done with the aid of elephants. In all my excursions, I carried nothing but a long knife for use when I had to cut my way through the undergrowth. A coolie, carrying the camera, followed me like a shadow. I used an *f*/1.8 lens and supersensitive film. I never forgot the exposure meter, since the light constantly changes under the trees.

I think that very few subjects are as dramatic as felling a big tree. When the woodcutters hear the first crack of the timber, they draw away to a safe distance. The tall bole wavers, at first only slowly, leaning forward while its upper branches scratch the neighboring trees in their sweeping fall. It hits with thunder, opening a large well of light into which follows a shower of foliage like shedding petals. The tree makes one or two somersaults on the slope before lying dead, and, when the echoes of the hills have responded to the roar, the profound silence ensuing is the surprise and the reproach of the forest.

Movie makers should not miss the opportunity to film trees being felled, whether in the tropics or in the American timber country. The northern forests may be less dramatic in themselves, but the logging operations are equally interesting.

The best way of shooting the fall is more or less against the light. Plenty of shade should be available for the lens! While the men are at work, you set the camera, at a distance of about forty to fifty feet, opposite the direction of the intended fall. Thus, you will not have the whole height of the tree, but it is quite unnecessary and often impossible. The interesting movement is chiefly near the ground. If a bush, in front of the camera, interferes with part of the view, you can have it cleared down. Underexpose slightly, to get the trunk silhouetted. When the tree has fallen, the amount of light is doubled, because of the big hole made in the foliage around, so you will profit by the slight underexposure at the beginning of the scene. Do not release the camera until the last leaves have whirled down, for the shower of leaves in the light, after the fall, gives a beautiful effect on the screen.

To build up the episode, you will want to shoot the woodcutters. You may show the gang first cutting their way through to the trees, crossing a torrent or emerging from the darkness into a ray of light and then disappearing in the brush. If there is enough light and if the film is intended for a study of the work, a slow motion sequence of handling the axe or saw will reveal their skill.

Film the first stroke of the axe,

[Continued on page 442]

The sound projector

L. T. SACHTLEBEN

How to operate it to obtain maximum efficiency in use

MOVIE MAKERS who have acquired the technique of careful silent film projection are more than half way to their goal when they undertake 16mm. talkie screenings. They are already familiar with the qualities in projection that produce a good screen picture and they know how to keep their machines in condition to give the best results. It is only necessary to extend this technique a step or two further.

The sound reproducing equipment of the projector is made up of a combination of mechanical, optical and electrical systems and, if the room is considered as a part of the reproducing equipment, an acoustical system.

Each system of the combination has its own characteristic effects upon the reproduced sound and, for the best overall results. each must be properly designed, constructed, adjusted and cared for. The owner of a projector has no direct control over design and construction factors and little control over adjustments. aside from those which the instruction book tells him to attend to periodically. In the choice of his equipment, he must be guided by the reputation of the manufacturer and the experience of reliable dealers. But the adjustments outlined in the instruction book, and the care of the equipment, are in large measure up to the owner.

The job of the mechanical, or film moving, system of the reproducer is primarily to move the sound record at uniform speed past the bright line of light of minute width which "scans" or converts the moving photographic wave into a pulsating beam of light. When it fails of this job, the result is a projector "wow," indistinguishable from the recorded "wow" in faulty prints, since the recorded "wow" originates from speed variations in the film as it passes through the recorder.

The projector "wow" results from the film running alternately too fast and too slow through the projector, and accordingly alternately raising and lowering the pitch of the reproduced sound. Since it is impossible to distinguish between recorded and projector "wows" merely by listening, the serious showman who prides himself in keeping his equipment in the best of condition should obtain for himself a film which has been carefully made and shown to be free of "wows" and distortion, by having been tested on a high inertia reproducer, and which contains a series of frequencies all of the same amplitude. A suggested list of frequencies is: 100, 500, 1000, 2000, 3000, 5000 and 7000 cycles a second. Each frequency should be about eighteen feet long to allow about one half minute in which to judge the performance of the reproducer. The large number of frequencies are necessary because all "wows" are not equally apparent at all frequencies and, if listened for at only one frequency, they may escape detection.

F. S. Lincoln

A projector "wow" could spoil this scene's narration

When listening for "wows" it is, of course, important to know what a record should sound like when no "wows" are present, and the best idea of this can be obtained by listening to a series of good tuning forks, until a good notion is formed of the true quality of a pure tone. Probably no projector will reproduce a sound as pure as the tone of a tuning fork, even from a perfect frequency film, and, unless the reproduced tones are quite noticeably "wailing," "wobbly," "gurgly" or "fuzzy," the projector is probably doing its job reasonably well. It should be noted that, when listening to constant frequency tone recordings, one should keep his head in a fixed location and there should be no persons or objects moving about the room. Unless these conditions are met, spurious "wows" may be heard. In the absence of a constant frequency tone record, as a reference for standard projector performance, the serious enthusiast should have in his possession a slowly played, simple toned piano recording of tested quality. It may even be found to serve better in this capacity than the frequency tone record, since the user may have a better conception of a piano tone than of a pure frequency tone and therefore be able more readily to detect trouble by its use.

If the "wows" are still in evidence when the projector is kept clean and properly lubricated according to the instruction book, dealer service should be called in.

The sound reproducing or exciter lamp should be kept clean on both front and back surfaces and should be adjusted properly with respect to the optical axis of the sound reproducing optical system. This adjustment should be covered in your instruction book. In case no instruction covers its adjustment, and it is adjustable, move the lamp up and down axially until the position is found which produces the loudest signal and secure it in this position.

The buyer of a sound reproducer should assure himself that the reproducing optical system is capable of being cleaned. It should never be taken apart, but the glass surfaces at its two ends should be accessible for cleaning with a little lens paper wrapped on a toothpick, and possibly *very lightly* moistened with alcohol or carbona. Lenses are really glass surfaces, and surface smudges effectively destroy the quality of a lens until they are removed. The surfaces of any mirrors or lenses between the film and the photoelectric cell, and the photoelectric cell itself, should be carefully kept clean. The importance of the cleanliness of optical parts is not well appreciated, and the enthusiast may have to resort to a blind trust in its necessity if he cannot actually sense its importance, but in either case good results can be assured only by following the rule of cleanliness.

A matter not heretofore mentioned, but

[Continued on page 438]

Here's a scene for title 3 — you may have to hunt a bit

Keystone View Co.

The weaker sex

BETH BROWN, ACL

THE other day, at the American Fiction Guild, I met a little old lady who was frail and timid. She looked as if she slept in sheets kept in lavender. I learned to my amazement that she was a famous deep sea diver—one of the biggest and best.

Believe it or not, on Forty second Street, just off Broadway, is a lady shoemaker. Under her brawny touch, the big machines spit rubber heels in five minutes and leather soles in ten.

Last week, I was walking down a shady side street of a sleepy small town when, to my surprise, I discovered a woman sitting on a scaffold painting her green house white. The legs that swung into view wore the family pants all right.

Then and there, I decided that the clinging vine had gone out with the hoop skirt and that somebody should sing out in anthems of praise for those members of the weaker sex who were taking their place in the world—especially in the world of sports.

No doubt you live near a beach—or, at any rate, a swimming pool. Somewhere within reach is a golf course, a baseball diamond or a school yard where pretty high school girls play basket ball. Once you get on the subject of women in sports, its many ramifications will surprise you. First thing you know, you'll hear of a lady archer, a champ bowling whiz or a crack pistol shot.

Put these odd shots into the pot, stir and ladle out indiscriminately. For once, continuity does not matter. The trick is in the titling—and it's here we mean to strike a new note. We're going to divorce the title completely from the text. We're going to keep a provocative mood all through the reel, never once giving our hand away, for, after all, the clever title is not the one that says here is a cat, but the one that does not let the cat out of the bag. Suspense can prevail in titles also—and here's how it's done.

Title 1. *When Grandmother was a girl, she was afraid to get her bathing suit wet.*

Open up with a shot of a modern daredevil swimmer.

Title 2. *Dear Grandma thought a spring board was something to iron spring clothes on.*

Have your star go into her high dives.

Title 3. *The old fashioned girl never went to a ball game because she couldn't understand it—*

Insert a scene of a baseball diamond and show a girl team in action. If you have no female baseball stars in your home town, maybe you can photograph a ladies' golf tournament. All you need to do is to change the words "a ball game" in your title to read "the golf course."

Title 4. *Remember how a lady got dizzy when she looked out of a second story window?*

Here any one of a number of shots will do. Make it as exciting as you can. It may be a lady parachute jumper, a pretty girl on a high roller coaster, a gaily sweatered daredevil ripping down a toboggan slide or a girl making a ski jump. You may even have a lady flag pole sitter in your collection of film.

Title 5. *In the old days, mother hid in a corner to powder up—*

Use a shot of a gal behind a smoking pistol. Or, if you haven't a lady marksman on hand, change the title to one about mother hiding from a mouse and use a shot of the modern lady lion tamer of the circus. Or—

Title 6. *In the old days, only the big strong girls could throw the little bean bag around—*

Insert scenes of a girls' basket ball team, badminton or tennis players.

Title 7. *Oh! How tired she used to get pulling homemade taffy—*

Put in a shot of a college girls' rowing team, or substitute whatever you have that's suitable.

Title 8. *The old fashioned girl couldn't keep her feet on the sliding pond—*

Ah, here all of us can shine with amateur Sonja Henies cutting a dash on the skating rink. If you haven't a winter carnival scene in any of your reels, then it's all right to substitute fancy roller skating—and that should be easy enough, with this particular sport one of the leading fads of the day.

Title 9. *In the gay old 90's, girls went boating to fish for a man—*

Use a shot of a female tuna fish champ (there's one in every newsreel) or of a lady in oilskins deep in deep sea fishing.

Now what other shots have you of women in sports? Maybe you have a stunt flyer. Maybe you have a circus performer. Maybe you have a good horsewoman leaping over high hurdles. Anything and everything goes—provided you don't let your titles give your picture away.

"Oh yeah!" is the satirical camera's commenting jibe

The home theatre

EDWARD P. ELLIS, ACL

What is essential in auditorium of domestic variety

DURING the winter months, there is no better way to add to the joy of amateur movies than to construct a small theatre for one's personal use. The theatre may be large or small, ornate or plain, but the satisfaction of having constructed a personal shrine to the cinema will be the reward, no matter what the type of theatre.

The room chosen should meet the following conditions:

(1) It should be large enough to hold the desired audience without crowding.

(2) It should be easy to light, heat and ventilate.

(3) It should have at least one *foolproof* exit—preferably two!

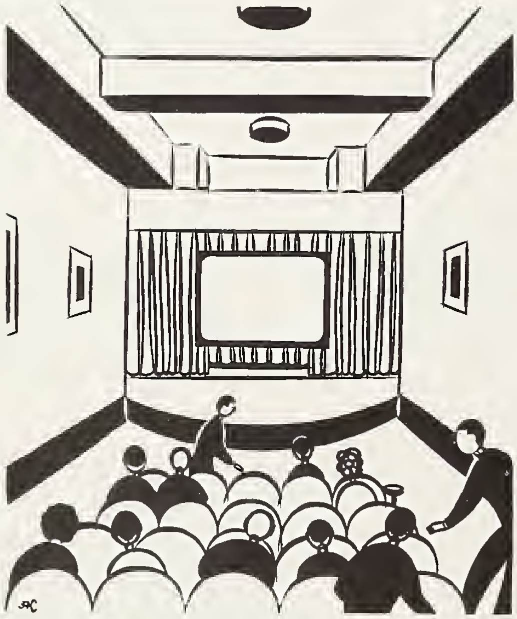
(4) It should be darkened easily for daytime presentations.

The space will prove even better if it affords an opportunity to install the projection machines in the next room, or in a small booth constructed for the purpose, and if the spectators are able to reach their seats without obstructing the beam from the projector to the screen.

If the room is to be used for more than the one purpose, it will prove wise to have all the movie equipment portable yet designed for the one installation, for only in this way can shows be put on with a minimum of fuss and bother. It is the ease with which a show is presented that marks the accomplished showman. Confusion mars a performance.

If the audiences are to be small, ventilation may not be a serious problem but, if large numbers are to be accommodated, it is absolutely imperative that a source of fresh air and an exhausting system be provided. If one is fortunate enough to have a modern air conditioning system, both of these points will be covered. If this is not the case, an exhaust fan should be provided and a means of heating the room should be installed. If radiators are not available, a gas fired unit heater may prove to be the answer to the heating problem.

The lighting, like the furniture, should be kept strictly in the period of the room. Ornate lighting systems are incongruous in plain rooms. Any fixture manufacturer provides such an assortment from which to choose that there is no need for poor lighting. If the room is to be used for general recreation purposes, it may be found wise to light the room entirely with indirect type floor lamps. The success of this installation depends, of course, on a ceiling surface of fairly high reflective quality.



A simple treatment of decoration and lighting is best

The use of dimmers on house lights is an idea worthy of second thought. It is wise to consult a good electrician at this point to make sure that all wiring will comply with local requirements. With small transformers on the market at reasonable prices, it is now possible for everybody to have at least one dimmer. This should control all the theatre lights except for the lines used for the projector and any exit lights. It seems probable that in the near future all theatres will light the area around the screen to relieve the framed effect prevalent with a black bordered screen. Authorities in the theatrical projection field have found by experimentation that the dead black border is not the most satisfactory method of framing the screen. The pictures are more pleasing and easier to view if the border is fairly light gray.

In the case of sound movies, when a goodly audience is present, acoustics cause but little trouble, for the average person absorbs considerable sound energy. However, if but a small audience is expected, it will be wise to consider carefully the floor, wall and ceiling coverings, as well as the furniture. Wall board which gives off a characteristic note when struck sharply with a fist is to be avoided, for its sound absorption at low frequencies is good down only to this resonant point, at which frequency the entire wall will vibrate, tending to set up standing sound waves within the room. If two hard surface walls are facing and parallel to each other, the situation also should be studied with care, for here too is a chance for standing waves to be set up. Similarly, if the floor is not to be carpeted, the ceiling must be sound absorbing. These precautions seem unimportant at first, but sound pictures are a reality and their use grows every day and, when one considers that the sound from the film can be garbled hopelessly by a poor room, it becomes apparent that considerable care should be exercised in the choice of building material. You may undertake sound on film movie making at home and, if so, you will find that a well handled "sound room" will prove its worth. Usually, a heavy carpet laid on a half inch rug cushion will suffice to condition a room for satisfactory sound.

It is felt by many that the most important piece of equipment in the theatre is the screen, and it is hard to emphasize strongly enough the care that should be taken when choosing the screen. If the room is wide, a good diffusing screen is necessary in order that a bright image will be visible to the persons sitting at the side. A flat white surface is best for this type of room. If the theatre is very narrow, it is best that the screen reflect all light possible in a narrow angle, and it is for this purpose that many of the silver or aluminum screens are constructed. The glass bead screens are the best examples of moderately diffusing screens and will meet the needs of the average room. While the professional theatres have found it wise to perforate their screens for sound coming from the speakers, this practice should be avoided in the home theatre, for much of the reflecting power of the screen is lost because of the minute holes. The shape of the screen is fixed, and of course the standard aperture proportions are inevitable. The size of the screen, though, is not, and it is here that the most care must be given. The dimensions must not be so small as to give a postage stamp effect to

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School for school films

ALEXANDER HEALY, jr., ACL

IT IS easy for movie makers to recognize the importance of substandard movies, but to make others aware of their importance is, as a rule, something else again. However, a distinct step was taken along that line this summer at the National Conference of Visual Education and Film Exhibition, held in the Francis W. Parker School in Chicago, Illinois.

Known until this year as the DeVry Summer School of Visual Education, the annual conference has been serving for a number of years as a focal point for those interested in the field of the teaching motion picture. Each year, delegates meet with four purposes in mind: (1) to hear about and discuss new techniques of visual education; (2) to study examples of some of the latest class room films; (3) to provide a clearing house for practical field experiences; (4) to study examples of new equipment.

This year, with a new name and larger attendance roll, there was a new feature on the program. Commercial advertisers using free films attended the Conference to confer with the educators and to hear at first hand criticisms and discussions of their pictures from the educational viewpoint. Since the school has become a large outlet for sponsored and publicity pictures, the teacher's opinion is important to the industrial film user. He must be careful about the propaganda content of his pictures if he wants the schools to use them. On the other hand, the educator has in advertising pictures a valuable and usually costless source of material. It is to the mutual advantage of the industrial film producer and educator to work together.

Two other sources of educational pictures were emphasized at the Conference. Teachers can obtain films from foundations established for the purposes or, more to the point, can themselves make pictures. Alma B. Rogers, of St. Louis County Schools, did just that. After finding that she could not get hold of any films to teach penmanship, she forthwith set out and made one for her own use. She borrowed the camera from her superintendent, an amateur movie maker, who helped her do the photography in the class room, and she made six reels on penmanship that cost $40.00. A joint department set up by eleven school systems, to pool, catalog and distribute films among seventy five individual schools, was glad to pay the filming costs and now uses the film regularly. Hers was one of the nine amateur films shown at the Conference.

The amateur films were thrown on the screen with no preliminary explanations or "buildup." Their quality and educational value took the audience completely by surprise, and amateur filming for educational purposes was elevated promptly in the critical minds of the delegates. William L. Zeller, ACL, of Peoria, Illinois, screened a 16mm. all Kodachrome film on birds that was the gem of the whole Conference. Mr. Zeller's patience and cinematographic skill combined to help him produce as fine a film of birds as can be found on the theatrical market.

An unusual Kodachrome amateur film was screened by Louis J. Mathias, director of activities at the DeVilbiss High School, Toledo, Ohio. Depicting the service of a modern hospital ministering to a victim of an accident, the film begins with the patient's entrance into the hospital, shows the various necessary operations and ends with his ultimate discharge, a healthy man. Bona fide doctors took part in the blood transfusion, X-ray and surgical scenes, and the rest of the cast was recruited from the student ranks of DeVilbiss High School. This all color film, which did much to aid the Community Chest drive in Toledo, was thoroughly appreciated by the Conference.

De Vry Summer School is enlarged and work extended

Of interest to the naturalist was the film, *The Michigan Beaver*, screened by Mr. Hastings, of the Department of Conservation, Lansing, Michigan. The feature of this picture was the magnificent closeup work showing beavers busily cutting down trees and building their dams. Mr. Hastings also screened a sequence dealing with the criminal fisher and hunter—violators of state laws. Well received by the audience, the film deserved praise from both technical and continuity standpoints.

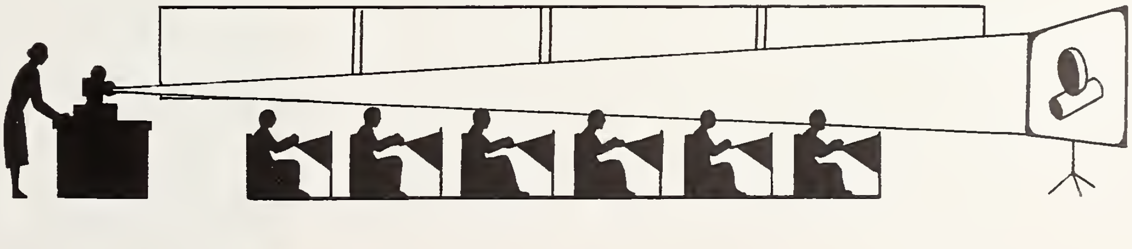
The outstanding surprise to the Conference was the commercial film, *Solvenized Motor Fuel*, filmed by movie maker Stuart Grant for Pure Oil Products Company. Primarily it was designed to give the personnel of the company a background of information about company products and consequently to stimulate sales efforts. Mr. Grant is assistant to the chief lubricating engineer and now is in charge of the company's motion picture activities. A sound film, with occasional musical interludes and proper sound effects, Mr. Stuart's picture was efficient and suave.

Professor Kissach, of the University of Minnesota, screened a beautifully photographed picture, called *Contacts*, which was made for a county medical association. The film took its title from the "contacts" made by carriers of the tuberculosis germ, and its actors were students and doctors connected with the University.

When a student sits in a darkened class room and watches a motion picture on a screen, he is brought into a closer and more intimate contact with the subject matter presented to him than is possible with any other medium. The producer of the picture has an exact and completely flexible control over what the student sees and how he sees it. For these two reasons, there is a direct, almost personal, communion between the mind of the creator of an educational film and the mind of the student viewing it. What, then, is more fitting than that the teacher, who knows the needs of pupils, knows how and what they should be taught, should make his own class room films?

Anne M. Filut, ACL, of the William T. Sherman School, Milwaukee, Wisconsin, in last February's Movie Makers, described how she made a movie to teach fractions. She told how her enthusiastic pupils, who all took part in the various branches of the production, were stimulated to better their spelling and English through the title and scenario writing. Her students were delighted to do

[Continued on page 437]



Ainslie Beckett and Ralph H. Campbell

"They Labour for Life," made in Cape Town, South Africa

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Active in Orange ■ New officers for its third year of club activity have been announced by the Cinema Club of the Oranges, in New Jersey, as follows: William T. Vanderlipp, ACL, president; Arnold M. Hill, ACL, vicepresident; Leo C. Leichter, treasurer; Robert Brooks, secretary. Dr. Nelson W. Lockwood, ACL, will serve the club for a second year as program chairman, while Harold C. Deuchler, ACL, will be in charge of the membership committee.

Under Mr. Vanderlipp's vigorous and resourceful leadership, members of this group have not been inactive during the summer months. A simple film contest, designed to stimulate interest and ability in planned plot filming, will conclude this month with a prize for the best interpretation of *Pop, What Makes Animals Wild?*, a basic scenario situation given to each member in June. To run not over 200 feet of 16mm. film, the story concerns itself with a trip to the "zoo" and allows ample leeway for individual treatment of subject matter. The first production of the club as a whole, a 400 foot, 16mm. publicity film for the New Jersey Orthopaedic Hospital, of the Oranges, was started in August and will be finished this fall. Mr. Hill is handling the direction of this project, while Dr. Lockwood is in charge of a camera and lighting crew which involves, in one capacity or another, nearly the entire club membership. *Tempo*, the group's bimonthly bulletin, will be enlarged to two pages this season to cover the increased activities of the year's program. Dr. Lockwood will continue his duties as editor, with the assistance of Herbert Smith.

New in Missouri ■ Sixteen enthusiastic movie makers gathered recently at the home of E. P. Burch, ACL, and enrolled as charter members of the Jefferson City Cinema Club, a new organization serving the cine interests of that Missouri community. Mr. Burch accepted the duty of first president and Father M. W. Deck will serve as secretary treasurer, each for a fiscal year. The club will have meetings on the third Thursday of each month, in members' homes, for programs of League Club Library and members' films and illustrations or discussions of fundamental phases of movie making technique. Dues have been set at twenty five cents each a month to cover the nominal costs of club operation. Guest of honor at the organization meeting was E. M. Critchfield, ACL, president of the neighboring Kansas City Cinema Club, who aided the new group with friendly and practical suggestions drawn from the experience of this older organization. The films screened on the first program—and clinically reviewed by Mr. Critchfield—were *A Century of Progress* and *On a Winter's Night*, by Mr. Burch; *Kodachrome Studies*, by Father Deck; *Seeing America First*, by George Leonard, and *C. C. C. Life*, by Dr. Stauffer.

Double for Oakland ■ In California, the Greater Oakland Motion Picture Club has lately completed work on *One Grand Lunch*, a one reel farce written and directed by Delmer J. Frazier, ACL. A novel feature of this production was its double filming, on 16mm. equipment by E. L. Ritzmann, ACL, and on 8mm. by Irving Bossie. In the small but competent cast were Charles Paulson, Jane Madden, Ray Maker, Eleanor Maker and Lucille Ritzmann.

Detroit meeting ■ Commencing with this month's meeting on the 26th, gatherings of the Detroit Society of Cinematographers, ACL, will be called at seven thirty in the evening of the fourth Monday of each month in the club's new quarters, the auditorium of the Highland Park Public Library. The new meeting place offers unusual spaciousness, comfort and acoustical properties, according to the report of Wallace M. Ward, ACL, secretary. A feature of the October meeting will be the presentation of a 16mm. sound on film picture supplied by the J. L. Hudson Company. Amateurs in the community are invited to attend the meeting as guests of the club.

Five for Richmond ■ Going into the fifth year of its varied activities for both still and cine cameramen, the Richmond Camera Club announces the reelection of Paul Goldsworthy as president for a third term and the choice of William Follett, ACL, as vicepresident and treasurer and of Elsie Goldsworthy as secretary. Mr. Goldsworthy will also carry on as editor of the club's interesting bulletin, *High-Lights*, with the assistance of Mrs. Goldsworthy. Acting for the Richmond Camera Club, Ray Moffett and Mr. Goldsworthy have again filmed the opening of the local yachting season for the South Bay Yacht Club, in nearby San Jose.

Club in Syracuse? ■ Amateur movie makers in the Syracuse, N. Y., section who are interested in an effort to establish a club serving them are asked to get in touch with William A. Peters, 219 West Matson Avenue, Syracuse, according to a report from Z. W. Abrams, ACL, of that city.

In Newark ■ In New Jersey, the Amateur Cinema League of Newark has announced new officers for the coming year of work as follows: Albert E. Sonn, president; Ralph Kynor, vicepresident; Frances Herzog, secretary; Dr. Sigmund Kaswiner, treasurer. The club's annual competition for members' films is under way and the final judging will be held in November. Five awards are offered in the form of varied cine equipment, and a dozen or more entries are expected.

[Continued on page 447]

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Shoot on leader? ■ The question often arises as to how one may be sure that he is not taking a scene on the protective leaders or trailers found on all daylight loading movie films. Some brands of film have a paper leader, others a black film leader and still others are simply supplied with extra film footage to serve as protection at the beginning and end of the roll. This extra footage is cut off when the film has been processed and so. should one take a scene or part of one on it, the shot would be lost. In every case, the movie maker is furnished with a full one hundred or fifty foot roll in addition to whatever type of leader may be used by the manufacturer. If the leader is paper and the camera has a removable lens, one method of being sure that the first and last scenes will not be wasted is to thread the film in the usual way, place the cover on the camera and remove the lens so that the aperture can be seen. Run the camera until the emulsion (yellow or gray in appearance) can be seen in the opening. At this point, stop the camera and put the lens back in position. The footage meter then should be set at one hundred or at fifty. as the case may be. If the footage meter is of the self setting type, close the camera and run off the leader until the one hundred or fifty foot mark is in place. Do not shoot after the zero mark has reached the indicator arrow. because the laboratory will cut off this footage automatically. If the leader is not paper and if the footage indicator is not self setting, the best procedure is to load the camera in the ordinary way and. having closed the cover, to run the camera for about ten seconds. This should bring the beginning of the usable film into position, and at this point one can set the footage meter at the hundred or fifty foot mark.

Rubber screen ■ Duncan MacD. Little. ACL. often has occasion to show his films in small churches and halls in rustic communities where he must provide his own screen. He travels by motor and he has found that a good sized screen is the most difficult piece of equipment to carry on his holiday trips. He has solved the problem by using a rubber blanket which can be folded and put into the projector case. When unfolded and hung upon a wall, it makes a fine screen, because it does not show wrinkles, and one side is dead white and the other black. Grommets at the sides provide holes for mounting.

Jack o' lantern shots ■ The movie maker can see at a glance that it would take more than the traditional candle in the Jack o' lantern to make a picture like the one on this page. One flood bulb in the lantern and one outside will do the trick. A sheet of tissue paper placed inside the pumpkin and against the holes will give diffused illumination. The flood bulb outside is necessary to illuminate the youngster looking down. Supersensitive film and a stop of *f*/8 ought to produce results good enough for any Hallowe'en projection party.

Title trick ■ A title which gives the effect of letters spelled with electric lights can be made with a sheet of metal painted black and some shiny steel balls. such as those used in ball bearings. The letters should be drawn out on the tin and then. by means of a punch. small dents are made in the tin to keep the balls in place when they are laid out to form the letters. If the tin background is dead black and if one flood bulb in a reflector is used near the camera, the balls will shine exactly like electric light bulbs. A novel touch can be added to this title by filming the lettering upside down and. at the end of the shot. tilting the metal sheet slightly to allow the balls to roll off. When the film strip is reversed end for end and projected right side up, the effect will be that of light bulbs rolling into place to form the words.—*Andrew Lenard, ACL.*

Bubble titles ■ A closeup of a child blowing soap bubbles, followed by an extreme closeup of a bubble bursting to reveal a title, is a very simple but effective trick. Simply film extreme closeups of a few bubbles bursting and then make the titles in any way you choose. The trick comes in the cutting and splicing. Study the closeup scene of the bubble bursting and cut it just about two frames after the bubble has burst. Splice the title in at this point, and the bubble will appear to burst and reveal the title. Variations of this can be worked out and the titles can be made to fit the film. This idea can be handled with the sim- [Continued on page 445]

Philip D. Gendreau

Put one flood bulb in the pumpkin and place one outside

16 mm. Kodascope, Model E

The Model E represents an extremely important idea in home movie showings—projection "tailor-made" to individual projection conditions. The size of the room in which you show your films... the size of the screen you use—the "E's" list of projection lenses and lamps enables it to supply just the right amount of illumination for any screen up to 10 feet in width and at distances ranging from 9 to 74 feet. Its lenses—1-inch *f*.2.5, 2-inch *f*.1.6, 2-inch *f*.2.5, 3-inch *f*.2, and 4-inch *f*.2.5; its lamps—400-, 500-, and 750-watt. From these you select the lens-lamp combination best suited to your individual needs. The price of the "E"—not including lens and lamp—is but $39.50; and only $54.50 including 2-inch *f*.2.5 lens and 400-watt lamp—a combination supplying ample illumination for average home shows.

The "E" Offers Much for Little

The up-to-the-minute design of the Model E is immediately apparent. It is extremely cool and quiet in operation—cool, because of its powerful fan and efficient cooling system; quiet, because its six major bearings are pre-lubricated. The base of the Model E is designed for projection from carrying case top, thus eliminating the need for projection stand or table. Its 30° tilting device permits you to direct the projection throw upwards or downwards to a screen on floor, table, or mantel. The "E" has a new design fixed-center framing device—once you've centered the image on the screen you need not again retilt the projector to correct framing. And the "E," of course, offers fast motor rewind of film, and variable speed control.

See the "E." Check its brilliance and crisp screen results against those of your present projector. Here, obviously, is the outstanding projector value in the 16 mm. field.

16 mm. Kodascope, Model L

This de luxe projector likewise offers "tailor-made projection" through the medium of its 1-, 2-, 3-, and 4-inch projection lenses and 400-, 500-, and 750-watt lamps. In addition, it possesses a host of projection refinements unequaled by any other 16 mm. projector. The price of the "L," including incidental accessories, is $165—your choice of lens and lamp, extra

ood Movies Deserve
Best Projection . . .

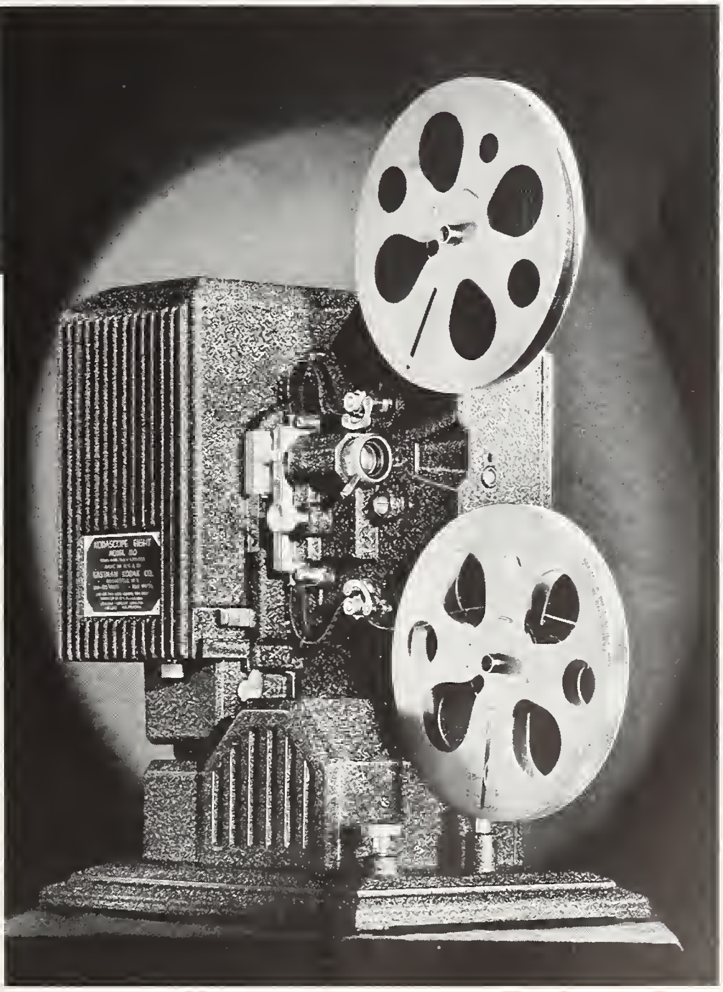
Kodascopes Are the
t in Their Fields

dascope Eight "80"

uch of the credit for the popularity of 8 mm. movies tly belongs to the brilliant screen pictures produced by the atile Kodascope Eight, Model 80. Its potent 300-watt alone is not the answer. A highly efficient optical system, ed off by an ultra-fast *f*.1.6 projection lens, is largely onsible for the quality of its screen results. *For it's the unt of light that reaches the screen that counts*—and the lel 80 makes the most of every watt of its standard 300- t coil-coil lamp, jumps this exceptional brilliance by 20% n you order the "80" with a 300-watt bi-plane filament p, priced but slightly higher.

his smartly styled 8 mm. projector looks, and is, built to ure. In operation it merely purrs. Its powerful fan keeps ool to the touch. It has conveniently located controls, ng, framing, and focusing adjustments, speed control, ll" picture attachment, and fast motor rewind. Its price, uding carrying case and incidental accessories, is $97.50.

STMAN KODAK COMPANY, Rochester, N.Y.



Good Movies Deserve the Best Projection . . .

These Kodascopes Are the Finest in Their Fields

16 mm. Kodascope, Model E

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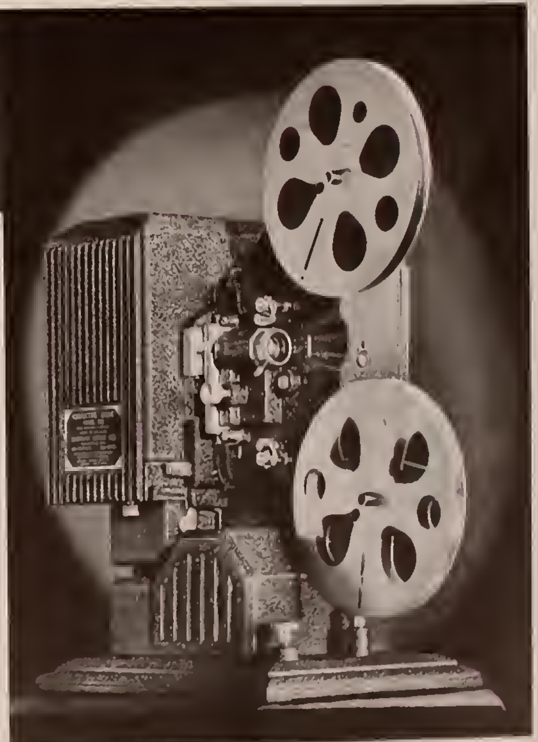
Kodascope Eight "80"

Much of the credit for the popularity of 8 mm. movies rightly belongs to the brilliant screen pictures produced by the versatile Kodascope Eight, Model 80. Its potent 300-watt lamp alone is not the answer. A highly efficient optical system, topped off by an ultra-fast *f*.1.6 projection lens, is largely responsible for the quality of its screen results. *For it's the amount of light that reaches the screen that counts*—and the Model 80 makes the most of every watt of its standard 300-watt coil-coil lamp, jumps this exceptional brilliance by 20% when you order the "80" with a 300-watt bi-plane filament lamp, priced but slightly higher.

This smartly styled 8 mm. projector looks, and is, built to endure. In operation it merely purrs. Its powerful fan keeps it cool to the touch. It has conveniently located controls, tilting, framing, and focusing adjustments, speed control, "still" picture attachment, and fast motor rewind. Its price, including carrying case and incidental accessories, is $97.50.



EASTMAN KODAK COMPANY, Rochester, N.Y.

News of the industry

RUSSELL C. HOLSLAG, ACL

Answers the query "What's new?" for amateur and dealer

Robbins independent ■ Samuel H. Robbins, formerly of Lugene's, recently has become the proprietor of Boozer's Camera House, 145 East 60th Street, New York City. Mr. Robbins is well known to photographic consumer and dealer circles and has held the post of secretary treasurer of the Guild of Photographic Dealers of New York City for three years. Many innovations in photographic service are promised by Mr. Robbins in his new location.

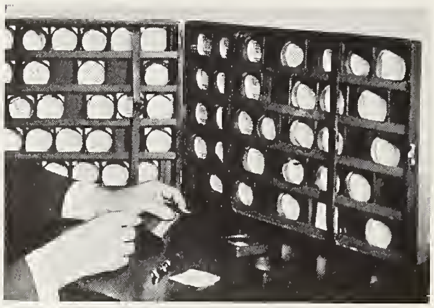
New sound library ■ Unusually low rental prices in 16mm. sound films are offered by United Film Libraries, 149 West 48th Street, New York, a newly formed organization catering to sound on film projector owners. It is said that this library will handle only new prints of well known subjects, both features and shorts.

New Weston table ■ A newly revised and up to date list of film speeds, for the photoelectric exposure meters made by the Weston Electrical Instrument Corporation, Newark, N. J., recently has been made available and will be sent on request to that company. This table includes values to be used with the new fast Kodachrome as well as with Type A Kodachrome.

Twinflector ■ Particularly appropriate to the present season is the announcement of a new, flexible, interior lighting unit, called the Twinflector, manufactured by Motion Picture Screen and Accessories, Inc., 528 West 26th Street, New York, N. Y. The new unit holds two efficient reflectors and is substantially built. The tripod can be raised to six feet in height, while the extension reflector arm enables the user to increase the height of the lamp two feet more. The two swivel arms are mounted independently in ball and socket joints and may be clamped rigidly at any position. The tripod feet are rubber tipped. Regular flood type lamps are used, and the outfit may be packed away in a small space.

Motor drive for RCA cameras offered by J. C. Haile & Sons

Agfa Hypan ■ A new panchromatic reversal emulsion with improved clarity and brilliance in screen results is announced this month by the Agfa Ansco Corporation, of Binghamton, N. Y. The new film, to be known as Hypan, is made particularly to give outstanding results in outdoor work, because of its panchromatic sensitivity, high speed and brilliance. It has a speed approximately equal to that of Agfa Superpan reversal film, hence it will give good results even under outdoor conditions where the light is poor. Hypan has a fine grain emulsion and anti halation properties. It will be supplied in 50 and 100 foot daylight loading spools at prices of $3.25 and $6.00, respectively. Processing and return by Agfa Laboratories are included in the cost.



Ralph R. Eno, ACL

Eno Edafilm, self contained aid for amateur film editing

Photoflood No. 2 ■ A new incandescent bulb, made for photographic purposes, has been announced by the General Electric Company, Nela Park, Cleveland, Ohio. This is the Photoflood No. 2, selling at 50c, which is said to give twice the light of the familiar Photoflood No. 1 and to have three times the life. The increased light output of this new bulb will be especially valuable in making interior color movies, both in 8mm. and 16mm. The new bulb has the standard, medium screw base but is longer and larger than the smaller model. Three can be used at a time on the ordinary home lighting circuit.

Bell & Howell

H. R. H. Prince Purachatra uses a 1000 watt Filmo projector

New Kodascope catalog ■ The Fifth Edition of the 16mm. sound on film catalog of rental library subjects offered by Kodascope Libraries, Inc., 33 West 42nd Street, New York, is just off the press and will be sent to Movie Makers readers on request. Examination of this 80 page booklet reveals the fact that the active demand for sound on film subjects is satisfied particularly well. The list is very complete and varied in scope and comprises many new subjects that are distributed exclusively through Kodascope Libraries.

New cine text ■ E. Byrne Hackett, president of the Brick Row Book Shop, Inc., 42 East 50th Street, New York City, announces the publication, on October 1, of *How to Write a Movie*, by Arthur L. Gale, ACL, editor of Movie Makers. The book with which this firm undertakes its first publishing venture in the cine field is a discussion of the basic fundamentals of movie continuity planning and scenario

[Continued on page 448]

School for school films

[Continued from page 431]

pages of figuring in measuring focus, centering titles and making charts; they vied with each other in art work to create original designs for title backgrounds. They learned fractions backward.

Perhaps a school in Japan may wish to teach its geography pupils what England really looks like. Perhaps the English pupils might wonder about the real beauty of Fujiyama or if Japan really grows so much rice. History students may well wonder about the appearance of some castle ruin or perhaps how the descendants of the great classical races now live. How would it work to superimpose the letters c-a-t over a moving picture of a large black feline stretching and stalking around for the delectation of first graders? Isn't this a new and better way to teach the A B C's? How many city children have never seen a cow milked, an egg hatched? How many country children have never seen a street car or an elevator, have never been through a factory?

Whether the individual teacher, the advertiser or the social foundation tackles the problem, the future of visual education is teeming with untried possibilities. Geography, history, biology, arithmetic, penmanship, health habits —practically every subject on the curriculum—can be taught just so much more quickly and clearly with the aid of substandard motion pictures. The use of movies in school is already a widespread practice, and in a good many schools it is of great importance. The future of visual education looks pretty bright.

Will your films last?

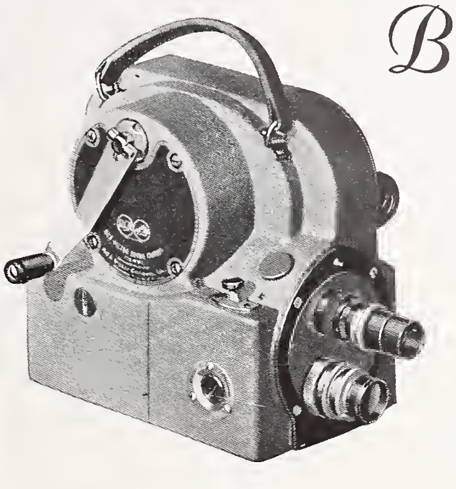
[Continued from page 425]

brittleness that may result in frequent breaks. Such projection apparatus should have a means for keeping the film humidified to combat the constant heat of the projection lamp.

Actual deterioration of film base or emulsion seems very rare. In nearly every case, it can be traced to improper elimination of hypo during processing and, although excessive dampness may cause gelatin to mold and the image to become affected, it will affect the base only to the extent of warping it slightly.

While this information is reassuring, probably movie makers still are interested in knowing just how they may best preserve their films.

It is apparent that the average home atmosphere is satisfactory for the storage of acetate base films. Probably there is no better place in a house or apartment than a low shelf in an ordinary closet. The low position insures a fairly

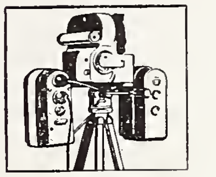


News Model
Ready to use
Turret Front . . . with 1" F:3.5 lens with built-in Microphone and 3 dry cells.

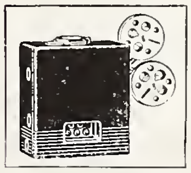
Bass says:

"Make
Sound Movies
as e-a-s-i-l-y
as Silent"
with this
$350 RCA 16mm
Sound Camera
now at Bass
for only

$210



- RCA Studio equipment consisting of amplifier, battery box, external microphone, monitor headphones with tripod mounting, complete. List $250.00; now $150.00.
- Critical focuser if desired extra, $25.00; now $15.00. 1" Wollensak F:1.5 Anastigmat lens in focusing mount. List, $50.00; now $30.00.
- 3" Wollensak Telephoto F:3.3 lens in focusing mount. List $55.00; now $32.50.
- Kodak Reversal Sound on Film, Regular Panchromatic, per 100 feet, $6.00.
- Kodachrome Sound on Film, per 100 feet, $9.00. 16 mm. Sound on Film Negative, does not include developing, per 100 feet, $3.50
- 16 mm. Sound on Film Positive, does not include developing, per 100 feet, $1.25.
- Bell & Howell Friction Panoram and Tilting Top Tripod at $27.50.



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HUNDREDS of enthusiastic users have discovered a new thrill in taking "SOUND" with this remarkable camera. RCA scientists have made it possible for you to record both sound and action successfully and EASILY...and BASS as sole distributor has brought the price within your reach. Write for literature or order direct from this advertisement.

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Dist. of Columbia:
Izzy's Exchange, Inc.
905 "D" St. N.W., Wash.
BOSTON:
Rhodes Eastern Radio Co.
88 Pearl St.
MINNEAPOLIS:
National Camera Exchange
5 South Fifth St.

AUSTRALASIA:
Theatre Equipment, Ltd.
Auckland, New Zealand

Rep. of Mexico:
Foto Mantel Carranza 11,
Mexico City, Mex.

GREAT BRITAIN:
Edwin Gorse
86 Accrington Road,
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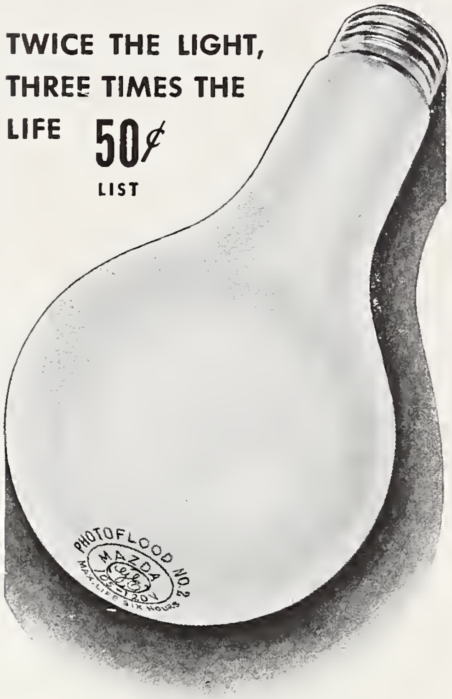

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cool temperature the year around. There should be no steam pipes passing through the closet or under the floor and it should not be near a chimney. An ideal temperature would be in the neighborhood of sixty degrees Fahrenheit, and this can be found in some place in almost any home. The reels may be placed in cans, such as the humidor type, or they may be stored in any type of container which will prevent dust from reaching the film surfaces. It is no longer felt to be necessary to moisten the blotter pads in the film cans. In fact, one large manufacturer has discontinued the blotter pad altogether. The cans should be laid flat if they are to be left for any length of time. This will prevent the film from forming uneven curves or loops if it is wound on the reel loosely. It is a good plan to wind the film snugly when rewinding, but in no case should the reel be tightened by pulling the end of the reel. This cinching almost always causes abrasion, since the film surfaces are tightened on one another.

If films have been subjected to excessive heat and are found to be brittle, their pliability may be restored by placing them, with a piece of moistened blotter, in an airtight container, such as the humidor type of can. The blotter should be moistened only once and in no case should any water touch the film. If film has been humidified to an excessive degree and then is dried out, it may be found in a warped condition that makes projection difficult. In most cases, this can be corrected by the film manufacturer if the film is sent to him for treatment. When film has been stored unused for a number of years, it does no harm to humidify it *once* before projection. While it should run through the projector all right, it might be slightly brittle, especially during the winter time. Certainly, it is wise, before projecting, to examine on a rewind film that has been stored for several years. You can see if splices are intact and if the film is pliable.

The film manufacturers feel that there is nothing better than water for humidifying films which have been dried out. Various preparations have been placed on the market for use in humidor pads and they appear to be satisfactory. However, it does not seem that there is conclusive evidence that they are superior to water.

Although films may be cleaned, the best policy is to keep them from getting dirty in the first place. This can be done by storing them in containers which keep out dust, by having all editing equipment and tables free from dust, by handling them as infrequently as possible with bare hands and by keeping the projector free from accumulated oil and dust. After editing a picture, it is wise to run the film with *very light pressure* through a dry, silk plush pad in order to remove the dust, dirt and particles of emulsion which are bound to be picked up during the editing process.

Cleaning should be done with pure carbon tetrachloride or an approved film cleaner which does not contain alcohol. Use as little of the fluid as possible and be sure that the film is perfectly dry before winding it on the reel. Kodachrome film is much more delicate than black and white, and special care is necessary in handling and cleaning it. It should be cleaned only when absolutely necessary and then only with a plush pad which is but slightly dampened with film cleaner. Finger marks cannot be removed once they are on the color film, and one must prevent them by wearing gloves during editing.

Kodachrome is more susceptible to moisture than black and white, and therefore excessive humidity must be avoided. It can be stored as outlined above.

These facts should allay the fears of those movie makers who have been told that their films would not last more than a few years or that they would soon shrink to a point where they could no longer be projected. If a film is in good physical condition, that is, if the sprocket holes are free from elongation or tears, there is no reason why it should not run through a good projector. If it does not run well (which happens rarely), then the projector should be checked carefully by the manufacturer. Such a condition in projectors cannot be easily detected by the average movie maker or his dealer. The projector was constructed with a tolerance to take care of any known degree of shrinkage; therefore, if it does not run film, it is a pretty sure thing that the machine needs attention.

The sound projector

[Continued from page 428]

which is perhaps of equal importance with freedom from projector "wows," is the frequency response of the reproducer. By frequency response is meant the range or band of audible tones or frequencies reproduced. The human ear is roughly sensitive to all sound waves having frequencies between twenty cycles and twenty thousand cycles a second. But sound recording mechanisms, mediums and sound reproducing systems ordinarily can deal with but a limited portion of this complete audible range without incurring expenditures for refinement prohibitive in equipment of the amateur type. Fortunately, good results do not require the reproduction of the full audible range.

Reproduced sound is characterized by the two qualities of balance and realism, insofar as it may be described by its frequency content. By balance is meant the location of the reproduced band of frequencies in the audible range of frequencies, or spectrum, and by realism or fidelity is meant the extent or broadness of the reproduced band of frequencies. Experience has shown that, to be well balanced, the reproduced frequencies should be distributed equally above and below one thousand cycles, such equality being expressed in octaves and not in cycles a second. For example, the octave above one thousand cycles extends to two thousand cycles, and that below to five hundred cycles, and this probably fairly represents the range of response of the early talkie systems. Present day amateur sound on film systems of good quality will respond from about two and a half octaves below one thousand cycles to two and a half octaves above that frequency. This range from 175 cycles to 6000 cycles is only representative and may be exceeded by some reproducers.

The quality of the reproduced sound is a product of balance and range, but if the range of frequencies is restricted and balance maintained, the results will be pleasing if not fully realistic. The ear is an organ which loves to be pleased, whether or not it is being told the truth, and this is equally the case whether it be listening to reproduced sound or to gossip.

To get back to the sound reproducing equipment itself, the matter of frequency response is dependent upon the condition of focus of the reproducing optical system and upon the design of the amplifier and loudspeaker. An out of focus condition of the optical system results in seriously reduced output of the high frequencies, which will destroy both balance and realism, and the focus is therefore of great importance to the quality of the result. Some projectors may be provided with a sealed focus made in the factory, but, if adjustment for focus is provided, the manipulation should be done while the projector is reproducing a constant frequency tone film of, for example, 5000 cycles. Move the adjustment back and forth until the signal reaches maximum loudness, in which position it should be locked. In the absence of a frequency film, an easy trick is to focus on "ground noise." By placing a loop of clear film in the projector and turning up the amplifier output and tone controls to their highest level, adjust the focus of the optical system until the fine hiss is loudest and shrillest, then lock the focus in position. When making such adjustments, which are necessary only very infrequently if the projector receives the right care, get the aid of an assistant at the loudspeaker to signal when the best condition is attained. This is advisable because of the difficulty of listening when standing close to the projector noise. The technique of focusing the sound reproducing optical system is the same as that commonly used in focusing the projection lens. The system is moved back and forth through focus to familiarize the ear with the best condition of the sound, and the extent of the movements are gradually reduced or narrowed down until the position of maximum loudness is attained.

Generally speaking, the amplifier and loudspeaker will give little trouble, and in case of trouble go to the dealer for service. The tubes should be tested and replaced when required, and a reliable dealer will be glad to make these tests. The photoelectric cell should not be neglected, as it is a part of both the electrical and optical equipments. While it is inherently a long life device, the photoelectric cell does gradually lose sensitivity with use and the passage of time. The failure of the projector to produce normal sound volume may be due to dirt on the photoelectric cell bulb or to the cell having reached the end of its useful life. If, when a new photoelectric cell is placed in the projector, a noticeable improvement in volume results, the old cell can be considered worn out and should be discarded. This is about the only significant check which can be applied to the photoelectric cell outside the manufacturer's laboratory, but it tells the user all that he really wishes to know about it.

Special care should be taken to acquaint oneself with and rigidly follow the routine of connecting and turning on the electrical equipment as described in the instruction book. If this is not done, serious trouble may arise. Many who love to tinker with the radio may feel competent to repair the amplifier if trouble is encountered, but, aside from the suggestions which may appear in the instruction book, it is safest to rely upon dealer service. If mechanical noises of local origin appear to come from the loudspeaker, consult your dealer.

The average comfortably furnished living room is probably ideal for sound reproduction. In halls and class rooms, trouble is likely to be encountered because of a long reverberation time if the walls are hard and no draperies and carpets are present. Stand in the room and loudly clap your hands. If the recurrent echoes, or reverberations, which follow last more than one and a half to two seconds, the room probably can be improved for sound reproduction by the placement or rearrangement of draperies and carpets. The presence of an audience helps to reduce the reverberation time, especially in a room of small proportions, and may often be depended upon to produce the desired result. In case of doubt, use draperies, if possible.

(Editor's note: This is the second of two articles by Mr. Sachtleben on the technique of sound on film projection. The first appeared in September Movie Makers.*)*

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Practical films

Reporting use of personal films in serious fields

■ Richard Woellhaf, ACL, recently has begun work on a documentary film of Denison University, in Granville, Ohio, which is to be presented to alumni and prospective students of the institution. Starting with a cinematic sequence of Commencement Exercises, the continuity retraces, without special protagonists, most of the activities, from art to sports and work to play, that a student may undertake during the four year stay. The film will end with a more detailed treatment of graduation and a brief recapitulation of the highlights of college life covered in the body of the film. Since the story requires scenes taken over a period of at least a year, the film will not be ready until next spring.

■ To bring home to the residents of middle Texas the fact that beautiful and historic spots are situated right under their noses, C. E. Bock, ACL, and a companion recently traveled eight thousand miles within the Texas area to make a four thousand foot film. The picture, sponsored by the Austin, Texas, Chamber of Commerce, was taken back to the towns near which the shots were made and was shown to packed houses. Printed guides, telling exactly how to reach each of the one hundred and fifty locations shown in the movie, have been published and placed in hotels and filling stations.

■ "Cows, in their milk giving capacity, are really foster mothers to the human race," thought John G. Ellis, ACL, breeder of world record Holstein Friesian cattle. So he decided to use this idea for a theme on which to build a publicity film in Kodachrome to stimulate the business of his Highfield Farm in Lee, Mass. The script, which requires scenes made during several seasons, will be called *Our Foster Mothers*. No beginner at movie making, Mr. Ellis has already made, for the Corona Ranch of the American Fruit Company, a film of oranges in California, titled *Blue Goose Tales*. Another picture of the same subject, to be called *Oranges for You*, is now being edited and titled.

Herman A. De Vry who founded the National Conference of Visual Education in Chicago

■ The superb pictorial beauty of America's great national parks in the Far West is pictured with unusual skill and charm in four one reel color subjects filmed by Vincent H. Hunter, ACL, staff photographer for the Union Pacific Railroad. They are *Western Rambles*, a composite of material on Yellowstone, Teton and Boulder Dam; *Grand Canyon —North Rim; Zion National Park; Bryce Canyon National Park.* Primarily, the reels will be used, not to induce new visitors to the parks, but rather for screening by the Union Pacific News service directly in the park lodges, with a view to increasing interest and activity in the side trips offered by each headquarters hotel. An ardent cinematographer himself, Mr. Hunter has included in his films many specific references and suggestions on the amateur movie making possibilities of his popular subjects.

■ Travel and health films lead the educational field in popularity, with pictures on basic industries a close second and the American home running third, according to Alfred L. Frederick, director of distribution for the Motion Picture Bureau of the Y. M. C. A. This organization distributes over 100,000 educational films yearly, covering more than 1,000 different subjects. Two of the most popular pictures offered by the "Y" are *A Day with The Sun*, a story of a hundred years of development of The New York Sun, and *The Chicago Tribune*, a presentation of the service that a great newspaper renders a community.

■ *Winning Her Way*, by Arthur McCallum, ACL, of New Brunswick, N. J., is a two reel film about Girl Scouts at their summer camp, Sakawawin, near Blairstown, N. J. Moving quickly through a short city sequence, where a young girl finds it possible to earn her way to camp, the camera takes the audience through various phases of life at Sakawawin and winds up with a sequence of the annual pageant, all done in Kodachrome. A theme of rivalry between the heroine and another girl is woven into the scheme and is brought to a happy conclusion by the heroine's rescuing her rival from drowning. She is then chosen by the counselors to play the leading part in the pageant.

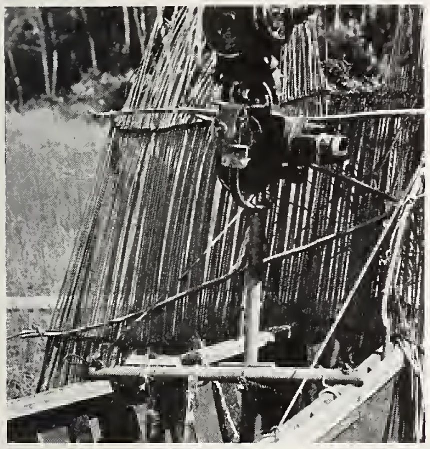
If you meet a moose

[Continued from page 426]

at the mine, and it was not unusual to see twenty or more in a single day. Once we paddled into a sheltered cove and surprised a big bull whose head was completely submerged. As we drifted closer, he raised his head to watch us while he munched choice lily roots. The back lighting was ideal, and the rivulets of water dripping off his antlers glittered in the sunlight like shiny metal chains.

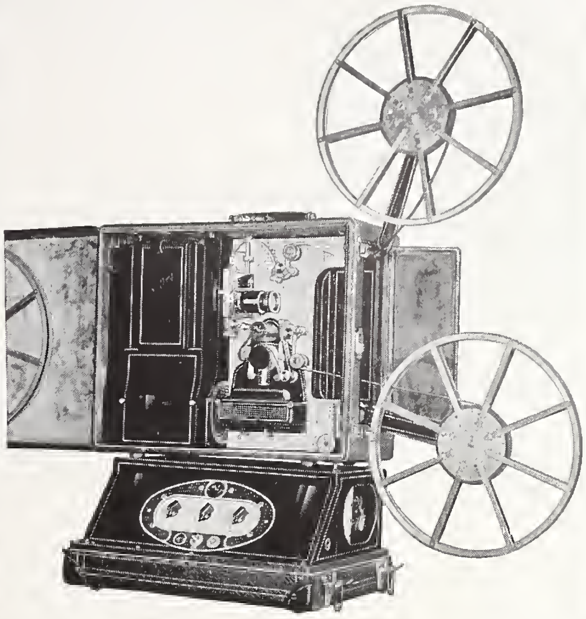
We had ample opportunity to fool with blinds on Lake Ritchie. Once we felled a couple of dead trees, built a stall in a hoof imprinted bay and covered the framework well with browse. From a distance it was difficult to see the blind. Yet countless hours we spent under these pine needle shelters, and nary a moose did we see. Then we crisscrossed two saplings in the bow of the canoe and interwove pine branches throughout, punching a hole in the center for the telephoto lens. When we shoved out from shore with our camouflaged outfit, the framework acted like a sail and made steering difficult. We spotted one moose half way across the lake and decided to try out our blind. But, before we had taken a dozen strokes, that moose was forty miles back into the timber.

From that time on we took our movies without benefit of cover, securing far better results by paddling close up when the animal's head was submerged and drifting motionless when he looked in our direction. One afternoon we nearly bumped into a moose by using these simple tactics.



W. E. Kidder, ACL, uses this blind in filming timid moose

When our films were developed, we discovered that the moose shots at the mine, taken after sundown with supersensitive panchromatic film, were as clear as those taken in bright sunlight. On the other hand, some of the scenes, which we were too cocksure about, were a bit underexposed because of the dark



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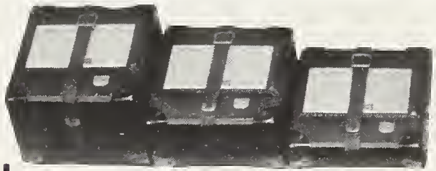

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green background of foliage. The best shots were those which were taken from shore with the camera pointing out over the water, so that, in the resultant scene, the animal was silhouetted perfectly against the lake or sky. The animal sequences, which we had taken when an early morning fog, drifting up over Lake Superior, blanketed the island, turned out to be first rate. A yellow filter was used, and shooting was begun shortly before the fog started to lift.

After considerable thought, we dubbed our two reeler *South of Thunder Bay.* First came long shots and medium shots of our steamer anchored at Duluth Harbor, passing under the aerial bridge and bumping out across Lake Superior. Gradually, the theme changes when the island looms up in the distance and calm water is entered.

Of course, there are the usual shots of canoe toting, camping and blind building. Because those who remain long on the island soon get to call the moose by first names, we decided to use titles something like these:

Maybe you'd like to meet some of our friends. First, there was Josephine. (Followed by a shot of a cow moose wading about in the shallows.)

Chief Big Whiskers never ate without dunking. (Telephoto of huge bull moose ducking his head beneath the surface for roots.)

Emmy was rheumatic, but her teeth were still hers. (Showing closeup of cow moose chewing on luscious lily root and looking toward the camera rather unconcernedly.)

Samson and Delilah weren't on speaking terms. (Unusual shot of cow and bull moose, hip deep in the lake, captured in same frame. As one head goes down for lily roots, the other head comes up.)

Julius was all bull and plenty wide. (Introducing a closeup of our biggest moose.)

Our closing scene, upon which we pride ourselves, reveals a bull moose walking against a dark background. The setting sun barely outlines his legs and neck until he stops and faces the camera, when the yellow light, striking full upon his head, sets off his horns in relief. While the effect is startling, the scene was entirely accidental, for (shh!) we forgot to remove the filter for this particular shot!

A camera in the forest

[Continued from page 427]

take scenes of the work from various angles and distances and follow with another closeup of the axe when the gash is already deep in the trunk. After the fall, show the men running to the now horizontal tree to start logging operations.

In order to add interest to my film, which was to record fully the work of

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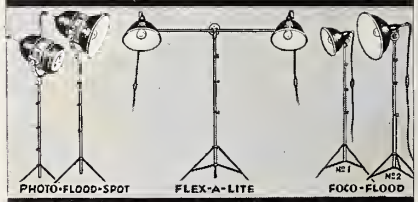

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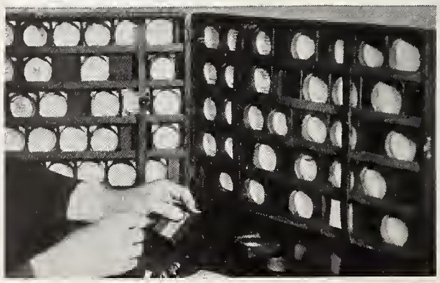

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logging teak trees, I began with views of the general forest landscape. By using a filter, I obtained some good cloud effects. Then I showed a tree being felled as described and next I made scenes, from increased distances, with less and less footage, of other trees falling. I inserted a very short closeup of an axe thrown into a gash and followed this by three or four pictures of trees falling, taken from the summit of a hill so that the action is seen only by the movement in the mass of the forest. Thus, I managed to give a thorough notion of the greatness of the job.

In my opinion, movie making is not simply a record of things seen but a synthesis of our idea and what we see. When we find something interesting in a scene, it is because we discover a relation between the scene and our own feeling. The scene is the visual realization of the intrinsic idea. We like it when we like the idea of it. Before shooting the subject, we must therefore carefully study it, so as to be able to reproduce in movies what I may term its soul. Many film stories are dull and commonplace, even when the action progresses normally and is full of life, because the movie maker has failed to understand what really interested him—the soul of the subject.

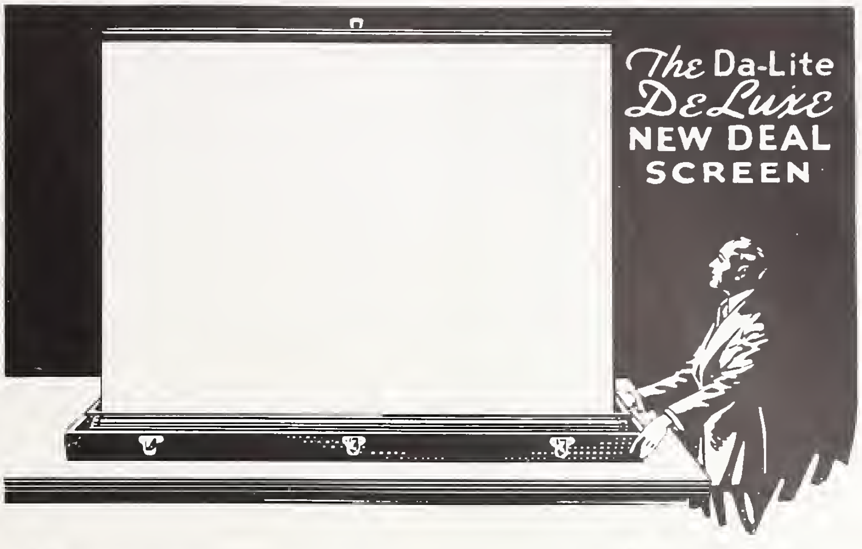
The general feeling of the subject must be emphasized as plainly as possible. Effects of light and camera angles are two powerful means whereby you can enhance the basic idea, but of course the selection of scenes is the principal means. You must avoid many chance shots which, although excellent in themselves, would destroy the effect. For instance, I caught the face of a woodcutter who turned, laughing right into the lens, and a coolie trying to kill a snake with a tripod. Both are excellent human interest scenes, but neither fitted the mood of the picture, which was based on my reaction to the subject. Both had to go out.

This is one of many reasons why movies are so very interesting and why we always find that our finished productions are but faulty representations of what we had in our minds.

The home theatre

[Continued from page 430]

the spectators, nor, on the other hand, should they be so large as to make it impossible for the audience to cover the majority of the area without appreciably shifting the eyes. With the two inch lens recommended for home projectors, a person sitting next to the machine views the screen width through an angle of nearly eleven degrees. Such an angle seems to give good results and might logically be used as a basis when designing the theatre. If a projection room or booth forms a part of the theatre,



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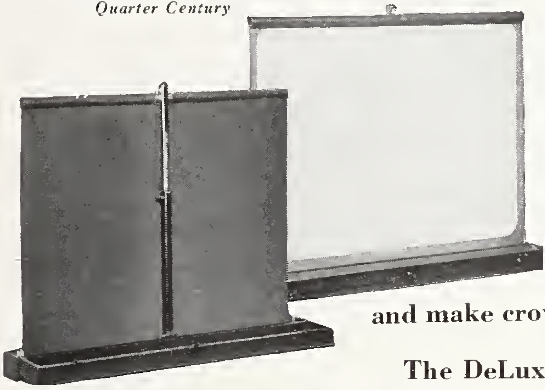

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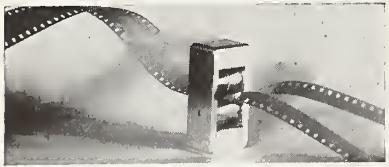

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it may be necessary to use either a two and a half inch or a three inch lens to keep this relative projection size.

The most important factor conditioning screen size is the amount of light from the projector. Just as reading in poor light causes eye strain, so does a dim picture. Insufficient light seems to give the effect of lessening the detail and sharpness of the picture, as well as of increasing the noticeability of any flicker that might be present. Theatrical screen illumination varies widely, ranging, in the better houses, from five to fourteen foot candles, according to current literature. On the basis of six foot candles on the screen, obtained with the projector running without film, R. Fawn Mitchell gives the following table of screen sizes for the home projectionist:

Proj. lamp watts	Lens speed *f/* number	Screen size
1000	1.65	6′ x 8′
750	1.65	5′ x 7′
750	2.0	4½′ x 6′
500	2.0	3′ x 4′
400	2.0	30″ x 40″
300	2.0	22″ x 30″

It seems probable that there are but few enthusiasts using such high screen illumination, but such practice does make for excellent projection, and. in the majority, there is too little illumination on the amateur screen for the size of picture shown. It will be realized now that the picture size must be adjusted to make the best use of the projector's available light, at the same time providing a screen size suitable for the audience.

The majority of projectors on the market are equipped with lamps large enough to give the above recommended screen illumination, and by far the large majority give steady pictures and are easy to run and reliable in their operation. A good test to make, however, is to measure the vertical movement of a projected picture. This should not be more than one quarter of an inch for a picture six feet wide. The reverse and rewind features are of little value in a theatre which is to be used for conventional shows.

The projector room, or booth, may make or break the theatre. The effectiveness of the shows often will be governed by the ease with which the equipment may be handled, so careful planning is important here. The booth should be roomy, light and airy. It should have an exhaust fan to carry off the heat from the machines, and a supply of fresh air must be available. There must be space for at least two projectors. These may be mounted side by side, as is conventional practice, but care must be taken to leave sufficient space between them to allow the operator to thread and service the projectors with ease. A method of mounting, which facilitates removal and still permits the machines to be centered on the screen when replaced, is

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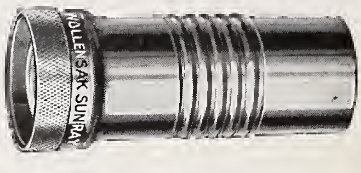

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recommended. Electric outlets should be installed by each machine.

A booth without a large rewind table would be almost useless, and with this feature should go a large storage rack. Lights over the table and by the rack are very important, but care must be taken to shade them in such a manner that no light may escape into the theatre proper. If sound is planned, there should be room for any proposed amplifiers.

The clinic

[Continued from page 433]

plest 8mm. or 16mm. camera because it involves no special manipulation other than careful cutting and splicing.

Fall filters and film ■ Autumn coloring with its excess of red gives beautiful color results but it brings up a point that the black and white user must consider. If he is using orthochromatic film, with its lack of sensitivity to red, he will find that shades of red will appear quite dark on his film. Panchromatic or supersensitive panchromatic will be better for fall scenes and, in the case of the latter, it is a good idea to use a green filter to prevent the red from registering too light. Panchromatic film and a yellow filter are a good fall combination. Red filters with panchromatic (never to be used with orthochromatic) will make reds very light, and of course are not particularly suitable for fall foliage.

Night color ■ Electric signs and fireworks are best filmed with Type A Kodachrome, although a satisfactory picture can be had with the regular color film if none of the incandescent light type is available. Faithfulness of color is not always as important with these subjects as it is with shots of flowers, people or other familiar subjects.

Building lead titles

[Continued from page 424]

Martin (whose titles are illustrated) in determining the correct treatment for his skiing film.

Primarily, *Wings in the Wind* was Mr. Martin's own, personally made picture. However, being a real fan of the sport and a critical movie maker, he sought the aid of experts in getting the results of which he dreamed. Thus, Helmar Anderson, the ski coach, was called in as adviser on the niceties of skiing technique, and the entire membership of the Down Mountain Ski Club was enlisted to portray the turns, runs and mobile beauty of skiing. It is probable that Mr. Martin talked over his filming ideas with both these coopera-

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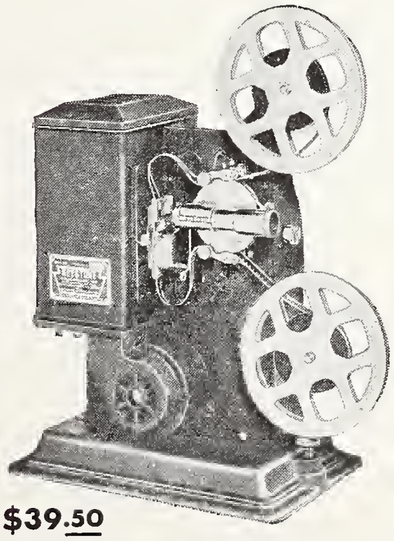

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tors and that later he even submitted his finished script for a final check. In the face of this, then, it is only natural that he felt the need of a lead titling technique other than that of the simple, personal film.

He decided to carry his main title first—and we think rightly. Even to him the subject of the film was the point of paramount interest and he felt sure that it would be to his audience. Again, he must have reasoned, wouldn't it seem a bit upstage to put his name first, then the main title and finally the courtesy credits? Thus, *Wings in the Wind* was featured, both in position and in type size. This main title he placed on an effective photographic background from Movie Makers and then dissolved to the first credit, *Produced by Kenneth R. Martin*. From that he dissolved again to the secondary or courtesy credits, which gracefully acknowledged the aid he had been given.

In this kind of cooperatively produced film, these methods seem eminently correct and suitable. Before going on to other common cooperative situations, however, perhaps there are a few lesser points of interest which may be cleared up. Mr. Martin, for instance, elected to carry his really striking background card through the assembly of three titles, a practice which, in theory, is again in good taste. However, one might well question the efficacy of doing this in the case of the third card containing the courtesy credits. Here the copy necessary to complete such a title, while not definitely over long, does begin to verge on the crowded. Because of this, one finds that the simpler its background the more easily it may be read, and one wonders if Mr. Martin would not have obtained slightly better results had he used his background only for the main title and had then dissolved into his two credits on neutral cards. Either way would be correct, and such decisions must always rest on the particular factors which govern each problem.

Probably the most complex kind of lead titling occurs in the case of a photoplay or other picture actually produced by a more or less organized group. Here, without much doubt, the fact that the film is a group production is a point of paramount interest and may rightfully be featured in an opening card, such as *The Cine-Filmers Present* or *The Rocktown Cinema Club Presents*. This then would dissolve into the main title of the picture, which, although second in physical position, should still be first in the importance of its type style as related to all the rest of the assembly.

Now, if the film is the work of an informal group of friends, our taste runs to but one more title—a credit for the technical staff—with no listing of the cast at this point. On the other hand,

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if a formally organized club has produced the opus, the titles might correctly include the customary cast of characters. In either case, considerable judgment should be used in deciding which contributions to emphasize in the technical staff credits. Theatrically, the most important worker is the director, and he gets the big splurge in the credit titling. With amateur filming, one may well question whether this emphasis always represents the truth. After all, isn't the sensible thing to apportion importance as importance is due? If your cameraman has been of the most value to the film, give him the preferred position. If your director really has done the major job, then give it to him. However you decide, we like to see the credits all on one card, along these lines:

Photographed by
James L. Minnifer
Direction .... Paul Brown
Story .... Elsa Errics
Editing .... Mart Major

There is one final comment on the listing of the cast of characters, which is not often considered because of the general tendency to carry these credits as a part of the lead title assembly. Obviously, nobody in the club needs to know who the players are, and, on the other hand, the other audiences are likely not to be familiar with the personel of the club at all. Isn't it true, then, that a strange group is going to be hard put to it to remember the name of each player as they learn during the picture the name of each character he represents? Isn't it far more effective to carry one's list of players and their rôles directly at the end of such a film, so that an audience may then identify with some surety the name of each actor with his stage name? After considerable thought on this matter, our vote goes for this latter way, and we did want to pass on the idea at least.

And finally, said the continuity consultant, if you feel like adding ACL after your name or to any other name in your credits which rightfully may carry it, then go right to it! We all think it's the best possible taste.

Amateur clubs

[Continued from page 432]

New Haven High ■ Twenty eight student organizations of Hamden High School, in New Haven, Conn., have cooperated financially with and are represented pictorially in *The Spotlight*, a 600 foot, 16mm. newsreel of the school's first year of activity, produced entirely by a student amateur filming group under the leadership of William H. Couch, ACL, of the science department. Among the pupils who have worked directly on the movie making are Dino Bertolini, Ray Garrett, Fred Marble, Paul Shelton, Robert Stuart, Louis Valente and Harvey Lantz. Mildred Haglund has served the group as business manager. Because of the deep interest among students and faculty in this initial filming venture, the amateur movie group hopes next year to expand the newsreel to a monthly issue.

Eights study ■ Recent meetings of the Los Angeles 8mm. Club, in California, have featured a discussion and demonstration of color filming principles, by Hartley Harrison, and a round table program on titling devices and title making, contributed to by many of the members. *I'd Be Delighted To!*, long one of the most popular films in the League's Club Library, was scheduled for screening at a late meeting.

Sherman Clay selects ■ In San Francisco, officers of the Sherman Clay Movie Club have been announced by secretary A. Theodore Roth, ACL, as follows: Tyson Kirby, president; John Alpers, ACL, treasurer; Mr. Roth, reelected secretary; C. C. Hayden, ACL, and Messrs. McAllister, Key and Kauffman on the program committee. Members of this group have lately been privileged to visit and follow their own films through the local processing plant of the Agfa Ansco Corporation.

Charleston, W. Va. ■ Eight enthusiasts signed the charter roll of the newly formed Kanawha Cinema Club, located in Charleston, W. Va., and it is hoped that a membership of twenty to twenty five will be built up within the year, reports Tom Gordon, ACL, first secretary. The other officers are Forrest Fisher, ACL, president, and Frank Tyres, vicepresident.

Boise afield ■ A motorcade of nine autos loaded with members and guests of the Boise Camera Club, in Idaho, drove fifty miles to Jump Creek Canyon on that group's recent photographic field day, reported a fine success by secretary Mildred I. Johnson. Regular meetings have featured a discussion and demonstration of title making, a talk on interior lighting, with the several setups being filmed by the members, and the clinical projection of members' films.

Anti war ■ From Los Angeles comes the one reel, 16mm. film, *Lives Wasted*, a production of the New Film Group, an affiliate of the Film and Photo League, of New York City. Directed by Max Liszt with the assistance of Glenn Nufer, the picture features Carl Brandon as a crippled World War veteran looking backward from the present in review of those

MORE LIGHT
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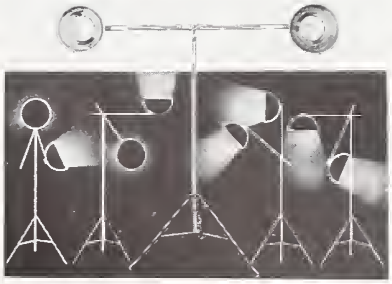

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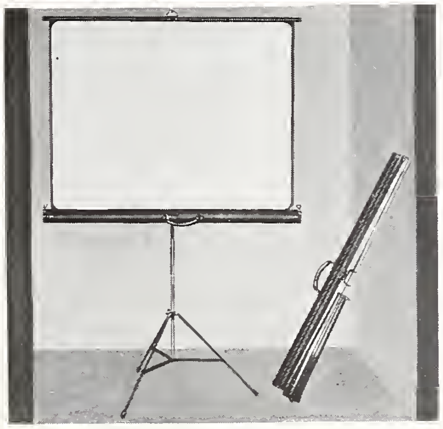

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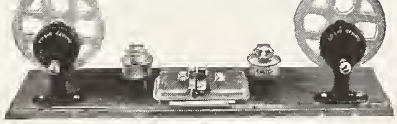
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events which brought him to his position of poverty and despair. Well photographed, effectively angled and directed with a nice restraint over the imminent possibilities for melodramatic bathos, this apparent protest against war yet seemed to loose force because of a lack —for this observer, at least—of complete clarity in its message. The Film and Photo League, a small group organized in New York City, will welcome hearing from substandard movie makers in the metropolitan area interested in working on this type of serious film production.

In Norristown ■ Members of the Amateur Movie Club of Norristown, in Pennsylvania, have been meeting on the third Monday of each month in the cellar theatre of Nelson P. Fegley, according to the report of Calvert Hurdle, ACL. Late programs have featured a talk on light, by Paul Kelley of the Eastman Kodak Company, and the screening of flood films, by James Carr. Present officers include Allen Hurdle, president; W. Berger, vicepresident, and Gordon Krieble, secretary treasurer.

News of the industry

[Continued from page 436]

writing, with numerous practical examples. The book is priced at $2.00, and its 215 pages, dealing only with the subject matter of movies and how to make entertaining pictures, are written for the beginning, the average and the advanced movie maker, working in both 8mm. and 16mm. Detailed information on planning movies in both sound and color is given. How to plan films for lecture use. presentation with double turntables and post synchronization are covered completely, and numerous examples of cue sheets, sound effect and talkie scripts are included. First director of the Yale Press and long prominent in book selling and publishing, Mr. Hackett brings a new standard of quality in book manufacture to the cine field. The importance of Mr. Hackett's imprint may be gauged by the fact that this firm is, at the same time, publishing *Gutenberg and the Catholicon of 1460*, with an original leaf printed by Gutenberg, the inventor of printing.

National Salon ■ The Oval Table Society, Inc., of 10 West 33rd Street, New York City, will sponsor the National Salon of Photography, 1936, to be held in the Vanderbilt Gallery of the American Fine Art Society, from November 1 to November 15. Two categories of still photography will be included. Pictorial and Technical, and a committee of eminent judges has been appointed as a Jury of Selection. Extensive preparations have been

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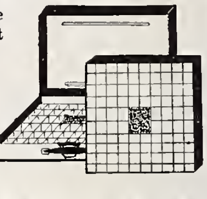
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Edward Weston ■ Movie Makers expresses its sorrow at the passing of one of the pioneer figures in the field of electrical research, Edward Weston. Founder of the firm which now bears his name, Mr. Weston had a long and honorable career in his field, the development of practical applications of electrical and allied sciences. He was the first to standardize the production of precise electrical measuring instruments, and this pioneer work has made possible the availability of the high type of photoelectric exposure meter in use today. This is, of course, but one of many hundreds of his achievements in electrical engineering.

Garrison releases ■ Special 16mm. instructional sound films, for use in the fields of sociology, biology, psychology and astronomy, are announced by Garrison Film Distributors, Inc., 729 Seventh Avenue, New York. Included are such films as the Ditmars zoological series and a study of conditioned reflexes.

Titles by Park Cine ■ Cine titles in the modern manner are offered in a new and fully illustrated catalog recently issued by Park Cine Laboratory, 1250 51st Street, Brooklyn, N. Y. Here one may find complete specifications of all the services in title making and kindred facilities offered by this firm, as well as clear illustrations of the many different borders, backgrounds and type faces available.

Leudi ■ A simply operated but effective exposure meter of the visual type, which has proved popular for use with "stills" for some time. has now been made available in a new model especially suited to movie work. This is the new Leudi exposure meter for cine cameras, marketed by the Mimosa American Corporation. 485 Fifth Avenue, New York City. The Leudi cine model is very small and compact, is easily carried and read and is sold at a low price.

Eyemos and Olympics ■ Reaching Europe just in time for the opening of the Olympic Games, two 35mm. Eyemo motion picture cameras, the product of the Bell & Howell Company, were shipped to complete a last minute rush order from the German government. These popular hand held cameras, the "big brothers" of the sixteens, were, in this instance, equipped with 400 foot magazines, electric motors, special accessories and an operating speed of forty eight frames a second.

Steichen in 16mm. ■ A specially prepared 16mm. reduction from a film subject showing the photographic methods of the famous photographer, Edward J. Steichen, has been made by Irving Browning, of the Browning Studios, 110 West 40th Street, New York. This subject, both in sound and silent versions, will be released this fall, it is said.

Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bell & Howell Co., Chicago, Ill., offers the following one reel Filmosound subjects: *A Boy's Pal,* an E. A. Woolner comedy; *Riders over Vogelsang,* a Clifford Nelson travelog of Yosemite; Felix the Cat cartoons, *The Oily Bird, Futuritzy, Whys and Others Whys, Astronomeows* and *Ohm Sweet Ohm. The Idol of Millions,* a sound film of the professional career of Jack Dempsey, also is available in three reels.

■ Eastman Kodak Co., Rochester, N. Y., has various catalogs of Cinegraph releases. Both 8mm. and 16mm. are covered.

■ Garrison Film Dist., Inc., New York City, offers 16mm. silent comedies starring Louise Fazenda, Al. St. John, Clyde Cook, Larry Semon, Lee Moran, Ned Sparks and others.

■ Walter O. Gutlohn, Inc., New York City, has a new catalog listing features, cartoons, musicals, class room films and other subjects in sound.

■ Guy D. Haselton Travelettes, Hollywood, Calif., continues to offer the unusual film, *Hummingbirds,* a study of a mother bringing up her young in a strange home. It comes in 16mm. silent, either 100 ft. or 200 ft. versions.

■ Kodascope Libraries, Inc., New York City, has for rent the six reel sound picture, *For Love Of You,* featuring Frank Forest, Diana Napier and Arthur Riscoe in a musical story with the Grand Canal of Venice as a setting. Mickey Mouse and Silly Symphony cartoons also are offered in sound to delight devotees of Walt Disney.

■ Lewis Film Service, Wichita, Kans., has the six reel sound feature, *Via Pony Express,* with Jack Hoxie and Marceline Day. A list of 16mm. sound and silent rental films will be sent on request.

■ Nu-Art Filmco, New York City, has Flip the Frog cartoons and William J. Burns detective stories in sound on film. A catalog will be sent on request.

■ Ernest M. Reynolds, Cleveland, Ohio, has scenic films of various well known points for sale. These come in 100 ft. lengths.

■ World Pictures Corp., New York City, has Robert Flaherty's film, *Nanook of the North,* in 16mm. silent for rent or for sale.

Making fades

[Continued from page 423]

liquid. Hold the thin glass in front of the lens and, when the fade is desired. squeeze the liquid from the dropper so that it falls on the glass just above the lens opening. Move the dropper back and forth an inch or so to obtain a fairly even flow as the liquid passes the lens and blocks out the light. The speed of the fade depends on the thickness of the liquid. This is the only fade out device given so far that cannot be used as readily for a fade in.

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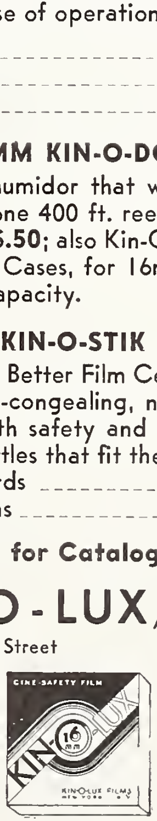

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CALIFORNIA

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Berkeley: Berkeley Commercial Photo Co., 2515 Bancroft Way.
Beverly Hills: W. L. Martindale, 9477 Santa Monica Blvd.
El Monte: Anderson Photo Service, 232 W. Valley Blvd.
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Photo Service Co., 1931 Mariposa St.
Potter Drug Co., 1102 Fulton St.
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Seymour's News Service, 1101-1103 N. Fairfax Ave.
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(Continued on page 452)

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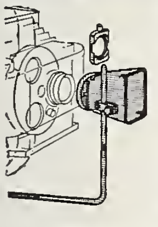

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yet perfectly satisfactory fades can be obtained merely by placing the forefinger against the lower edge of the lens shade. Take care that the forefinger is completely below the actual frame of the lens itself at the start of the fade. Then merely roll the forefinger up and over the lens. keeping the finger close to the front of the lens shade. This may be done at any degree of speed desired. Being close to the lens, the finger is out of focus and, since it is brought over the lens completely, it blocks out all the light. This fade is especially effective in double exposed titles when the writing is to fade out, leaving the background on the screen. The fade is so soft as to make the letters seem to melt away.

One also may pinch two fingers together in front of the lens to produce a fade, or curl up one finger. Surprisingly good results may be obtained.

3. Fades by remote means.

(a) Rheostat: One of the easiest means of obtaining a fade out in interior work is to plug in an inexpensive rheostat on the main current cable. When a fade is desired, it is only necessary to turn the current slowly down to OUT, and there is the fade.

(b) Light swing: If the shot is a closeup lighted with only a few spots or floods, an assistant assigned to each source can, at a given signal, slowly swing the lights away from the subject, leaving it so underexposed as to be faded out.

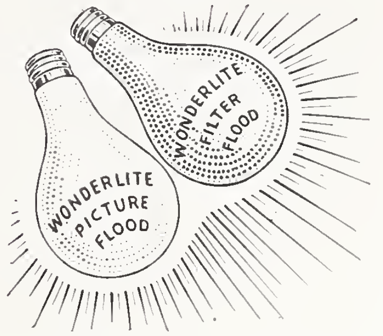
(c) Camera tilt: If the face of a subject is brilliantly lighted and the rest of the body and foreground are dark, by tilting the camera slowly from the closeup, down into the darkness, a good fade can be secured. This is a nice fade to use at the end of a photoplay, if it fits the action.

(d) Stunt fades: Under this head, we can classify various trick fades which depend on the action in the scene. For example, one of the characters may walk into the camera, blocking out the light or, in a closeup, another may blow cigarette smoke across the lens to blot out the scene. Closing a door or pulling down a shade may fit other action. While these, and some of the others we have discussed, are not true fades, they serve the same purpose.

All the methods that have been outlined, with the exception of the use of black liquid, will produce a fade in as well as a fade out. It is only necessary to reverse the procedure to make a fade in for the beginning of a scene.

It is of the utmost importance to use a tripod in every case. An unsteady fade is worse than none at all. Then, too, in most of the methods discussed, one hand must be free to manipulate devices, while in some cases both may be needed. The camera release may be locked to keep the motor running during the shot.

WONDERLITE



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(Continued from page 450)

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L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: Aladdin Camera Exchange, 4 E. 32nd St.
American News Co. and its Subsidiaries, 131 Varick St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
Broadway Camera Exchange, 1595 Broadway.
Camera House, Inc., 145 E. 60th St.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
Fifth Avenue Film & Camera Co., 545 Ffth Ave.
Films Editorial Service, 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
Henry Herbert, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
Luma Camera Service, Inc., 330 W. 42nd St.
Madison Mart, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
Rab Sons, 1373 Sixth Ave.
Rockefeller Center Radio Shop, 1242 Sixth Ave.
Rubin's Film Exchange, 11 Essex St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Port Chester: John F. Mowbray, Capitol Theatre Bldg.
Rochester: Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Edwin A. Hahn, 223 Columbia St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.
Winston-Salem: Clio News Co., 12 E. Fourth St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 39 E. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, 220 Second St., N. W.
Canton: Camera Shop, 531 Market Ave. N.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. Fourth St.
Huber Art Co., 124 Seventh St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. Sixth St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Lima: Acme Cine Service, 1204 W. Market St.
Portsmouth: V. E. Fowler, 824 Gallia St.
Harold E. Monroe, 802 Waller St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., 101 E. 4th St.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portland: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Philadelphia: Camera Shop, 51 N. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St.
117 S. 16th St.
H & R Camera Exchange, 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126 Sixth St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers, 416 N. Fifth St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.,
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Metropolitan Photo Supply Co., 33 Aborn St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
S. Howe Williams, 2703 Grove Ave.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores, Inc., 1415 Fourth Ave.
Lowman & Hanford, 1512 Second Ave.
Motion Picture Service, 1711 Ravenna Bld.
Sherman, Clay & Co., 1624 Fourth Ave.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Charleston: Camera Shop and Photo Supply, 110-A McFarland St.
Huntington: Honaker Book & News Co., 418 Ninth St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & Fourth St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
232 W. Wisconsin Ave.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., Third and Garfield.
12th and Vliet.
11th and Mitchell.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSION

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas e Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., 252 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

CANADA

Alberta

Calgarv: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News, Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co., Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
Street Photo Supply Co., 1479 St. Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 185 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 445 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
Budtz-Mullers Eftf. A/S, Bredgade 29.
Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Arts Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse, 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Kingston-on-Thames: Durbins, 24 Market Pl.
Leeds 1: Pearson & Denham (Photo), Ltd., 6 Bond St.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: Camera Co., 52 Cheapside.
City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
R. E. Schneider, Keystone Distribution Dept., 46 Farringdon St.
N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
S. W. 15: Durbins (Suburban) Ltd., 131 High St., Putney.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 13 & 14 Great Castle St., Oxford Circus.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8.: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leeks.

FINLAND

Helsinki: Aurora Filmi, Yrjonkatu 17A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell, Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseilles: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Establs. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
Filmo Co. of Holland, Spui 8b.
Foto Schaap & Co., Spui 8.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka" Admiraliteitsstr. 4-8.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., 154 Dharamtala St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S. A. F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlein, A/S, Nedre Slotsgate 13.

PANAMA

Panama Citv: Lewis Service, Inc., 124 Central Ave.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114-116 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C. 1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. R. Nordiska Kompaniet, Photographic Dept.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co., Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

FOR LOVE OF YOU

Featuring Frank Forest, Diana Napier and Arthur Riscoe

In this new Venetian operatic sensation, Frank Forest, Continental operatic star, with his magnificent voice and the personality of a Valentino, is supported by the fascinatingly beautiful Diana Napier and a magnificent chorus of 250 voices.

The story opens in a Venice hotel where two young Englishmen are intrigued by the apparently abused Diana. Out of sympathy, one of the Englishmen plans to cheer her up by giving her a gay afternoon on the Lido, while the other friend uses a ruse to get her singing husband out of the way. Forest discovers the plot and threatens to kill him. Complications continue and the climax is reached at a gay carnival where domestic peace finally is restored with Forest's triumph in the theme song and Diana's return.

A masquerade ball on a gigantic scale; the Grand Canal in all the glory of the carnival; picturesque cavaliers of the olden time, looking the eloquence of love into the soft eyes of patrician beauties; thousands of gondolas cleaving the sparkling waters while the gay gondoliers in silken doublets touch their guitars and sing softly under azure skies.

Then from a giant float, typifying a grand-opera setting, Forest's marvelous voice rings out in those wondrous tenor notes that have charmed millions of music lovers, not only the alluring theme song by Franz Vienna from which the picture takes its title, but also magnificent operatic selections from "Othello," "The Pearl Fishers," "Pagliacci" and the "Tales of Hoffman."

An earful of melody—an eyeful of splendor—a heartful of gorgeous romance. Six Reels. Talking Picture.

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CATALOGUES

16mm. SILENT—Revised Sixth Edition 208 page Illustrated Descriptive Catalogue, containing many new subjects, some of them in COLOR.

8mm. SILENT—New Fifth Edition 52 page Illustrated Descriptive Catalogue, containing many new Comedies, Cartoons, and Features.

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BIRTHDAY PARTY

A Mickey Mouse Cartoon

Minnie Mouse gives a surprise party—birthday cake and all—for Mickey. He is presented with a piano and proves to be a very talented artist. With Minnie he plays a two-piano duet and they furnish the dance music.

As the party grows gayer, the dancing becomes livelier. Many novelties are introduced. Among them is a xylophone which gives Mickey an opportunity to show further musical accomplishments from his never-ending capabilities.

WINTER

A Silly Symphony

"Ground Hog" day finally arrives and we find all the animals grouped around Mr. Ground Hog's front door. He emerges in due course and breaks into a dance when he finds no shadow. The other animals join in the revel which is rudely interrupted when the sun comes out. The Ground Hog's retreat is so rapid that his shadow is left outside. Then a terrific storm comes up and the other animals are driven to their dens.

BEAUTIFUL living creatures in action—there's no sight finer in the world. Galloping horses taking a fence—a flock of wild geese against the daybreak sky—a hunter and his setter against a background of golden fields and scarlet foliage—

Wonderful moments, these: ones every movie maker will want in undiminished colors for his film library.

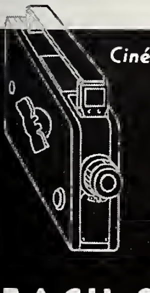
Nor need they escape him—for full-color Kodachrome movies can now be made by all standard 16 mm. cameras loading with 50-, 100-, or 200-foot rolls or 50-foot magazines or Packettes of Ciné-Kodak Kodachrome Film. For these there is not only the regular Kodachrome for outdoor daytime filming, but Kodachrome, Type A, for color movies at night with Mazda Photofloods. There is an inexpensive color-correcting filter permitting the use of daytime Kodachrome at night, and another filter lending Type A Kodachrome the proper color balance for daytime filming.

And owners of 8 mm. cameras taking the standard 25-foot roll of Ciné-Kodak Eight Kodachrome may match their 16 mm. contemporaries stride for stride.

Ask your dealer to show you Kodachrome movies. Eastman Kodak Company, Rochester, N. Y.

PRICES

16 mm. Kodachrome, both regular and Type A—50-foot rolls, $4.75; 100-foot rolls, $9.00; 200-foot rolls, $18.00; 50-foot magazines and Packettes, $5.00. Ciné-Kodak Eight Kodachrome, $3.75 per roll. All prices include processing at Hollywood, Chicago, or Rochester, N. Y.



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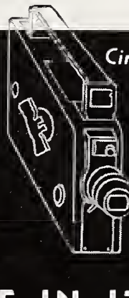

Ciné-Kodak Eight "60"

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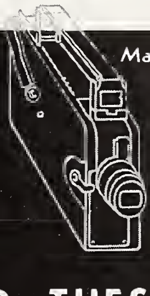

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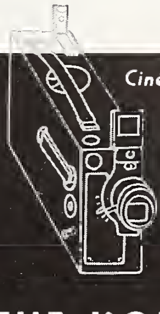

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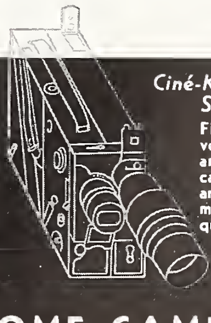

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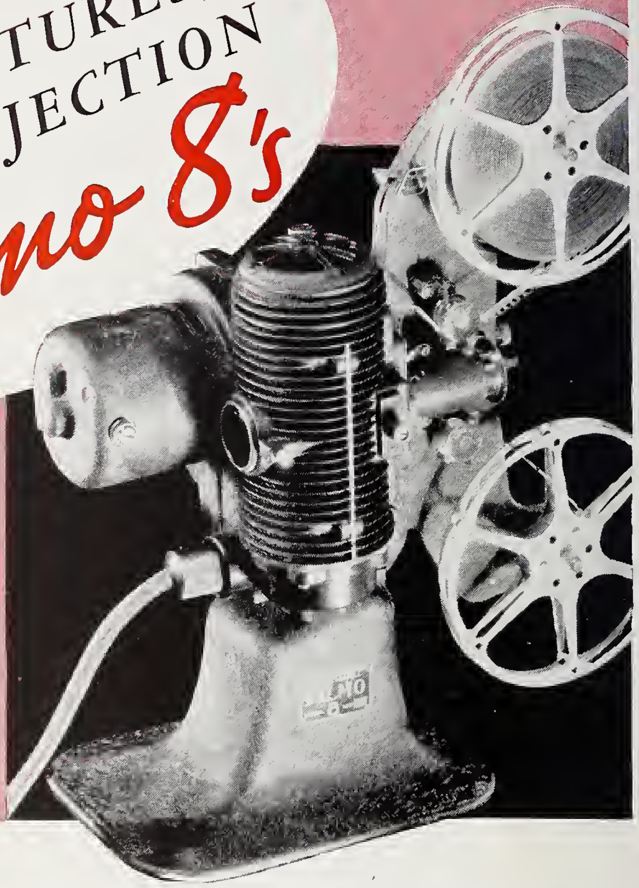

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MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

NOVEMBER, 1936

25c

What membership in the Amateur Cinema League will bring you—

1. **MOVIE MAKERS** ■ Membership includes a subscription to Movie Makers, a monthly magazine covering every phase of amateur filming, including timely articles on all aspects of movie making technique. Not only does the magazine keep you abreast of all new developments in method and equipment, but it includes in each number several articles designed especially to introduce the new enthusiast into the craft—articles which will present fundamentals of camera operation intelligibly and enjoyably.

2. **TECHNICAL CONSULTING SERVICE** ■ The League's technical consultant will answer any member's question by letter, by 'phone or in person if the member calls. He offers advice and help on exposure, focusing, use of filters, editing, titling or interior lighting—in fact, the whole range of technical problems. This service is not syndicated, but actually individual; the consultant will give full attention to any member's problem, sending him a full discussion, illustrated with diagrams, examples, etc., if necessary.

3. **CONTINUITY AND PHOTOPLAY SERVICE** ■ The continuity consultant will aid you in planning specific films by making continuity and treatment suggestions indicating how to get the most effective results not only in the reel as a whole, but in specific shots. In addition to this aid in "planning in advance," he is always glad to make suggestions for future work. He will give specific suggestions for writing scenarios, he will prepare title wordings and outline new subjects for filming. Detailed service in planning business, professional and industrial pictures is offered.

4. **CLUB SERVICE** ■ Should you wish to organize an amateur motion picture club—either a group to produce photoplays or a club of amateur cameramen—the club department can aid you. Complete organization material, based on the experience of hundreds of clubs, is available. Program suggestions are offered and A CLUB FILM LIBRARY, made up of outstanding films produced by clubs, is circulated among clubs without charge.

5. **FILM REVIEW SERVICE** ■ You may send in any films you wish for criticism and suggestions by the technical and continuity consultants. The member will receive a detailed letter about each picture screened. Editing and titling suggestions are offered and advice on technique for the future is given.

6. **BOOKLETS AND SERVICE SHEETS** ■ Booklets covering general and specific subjects on which the movie maker wants up to date, detailed information in convenient form are supplied to members without charge. They are issued periodically and give the latest information on the subjects that they cover. They are mailed automatically, as published, to all members who request to receive them. New members may receive all current booklets on request. Booklets now current are:

   Cine travel plans—32 pages
   Color filming—26 pages, illustrated
   Scenarios ready to film—32 pages
   Titling technique—32 pages

   In addition to the booklets, numerous mimeographed bulletins and reprints are issued from time to time and are available to any member on special request. These are not sent automatically to members but are used by the service departments to fill some of the special requirements for information that come from members.

7. **EQUIPMENT SERVICE** ■ New equipment is being announced constantly, and this service will help you to keep your own equipment modernized without duplication of purchases. The League aids members in locating new equipment, in making out filming itineraries and equipment lists and in securing specific films to fill in reels. It will also lend its services to facilitate relations between members and manufacturers and dealers, if this should be requested, and will secure information for its members on conditions affecting movie making in foreign countries.

8. **MAKING BETTER MOVIES** ■ A 241 page book on amateur movie making is sent to every member. Written in clear, non technical language, this book gives directions for every process, every device and every trick in movie making that you will be likely to use. It tells you, step by step, just what to do and how to do it to get the best results from your camera and projector. It is well illustrated.

9. **FILM EXCHANGE** ■ This service on a loan basis is made possible through League membership. As a member, you may list your films in the Film Exchange for temporary loan among members and receive in return the listing, by your fellow members, of hundreds of other reels, available directly from member to member. Available only to members who list films for exchange.

10. **PUBLIC RELATIONS** ■ The League has been able to accomplish much for amateur movie makers. It secured national legislation abolishing the former duty on amateur films, under regulations that are very fair to amateurs. It has aided in opening previously closed filming areas to amateur cine cameras. Further, the League acts as a clearing house for all ideas about movie making and announces these monthly in Movie Makers, which is written by amateurs and for amateurs. Amateur needs are told to the industry that provides equipment, and often new and necessary articles have been developed at the instance of the Amateur Cinema League.

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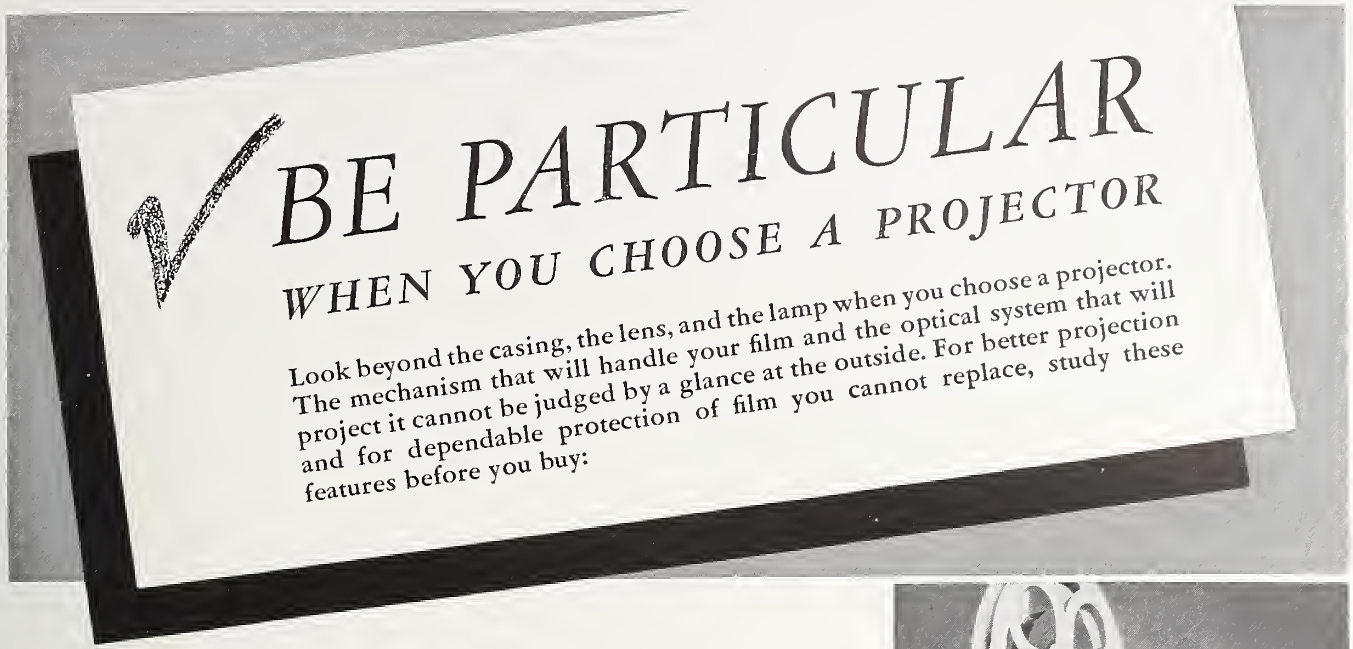

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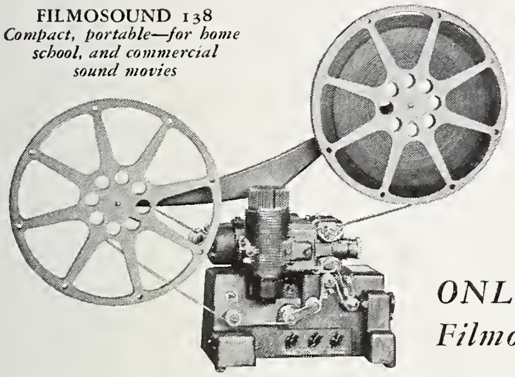

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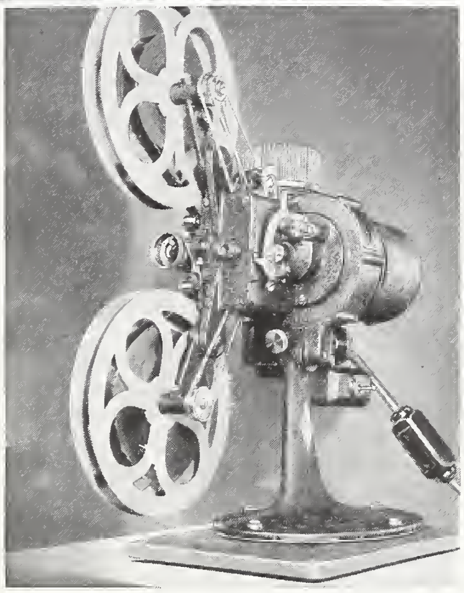

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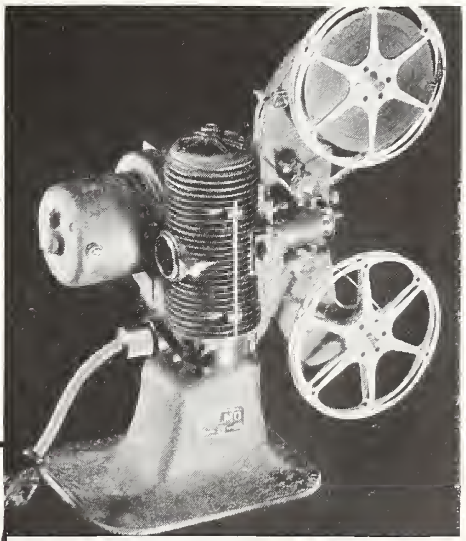

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MOVIE MAKERS

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The magazine of the Amateur Cinema League, Inc.

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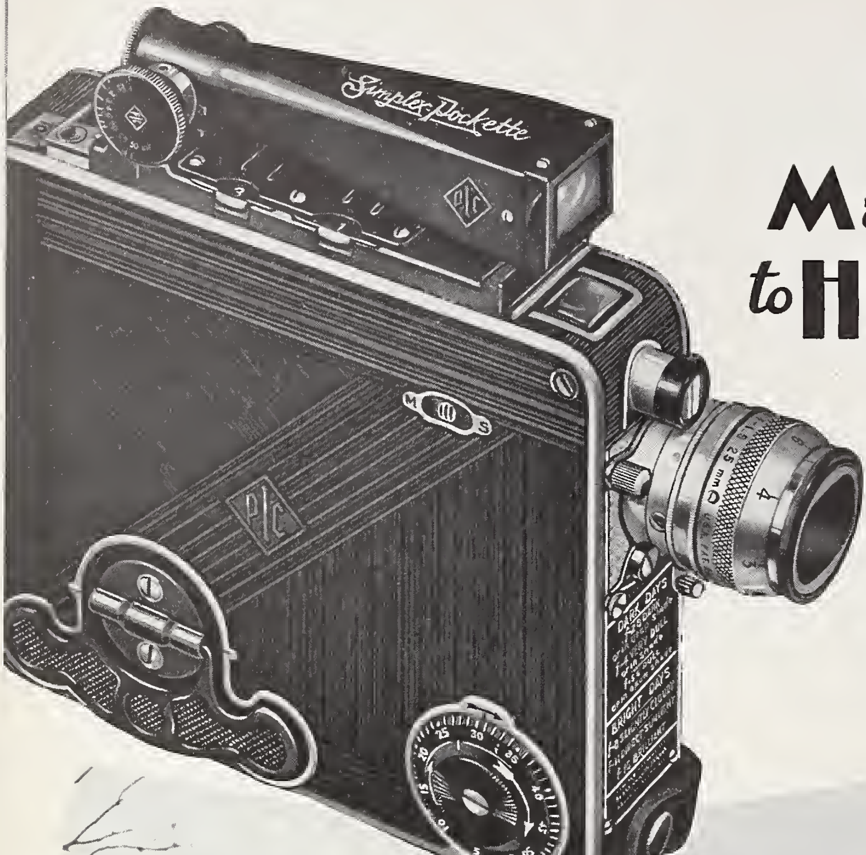

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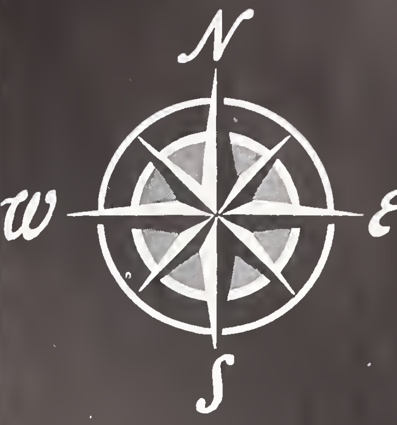

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Closeups—What filmers are doing

A book which should be of interest to many in the League is *A Genius in the Family*, written by the late Hiram Percy Maxim and published recently by Harper and Brothers. Here, the League's Founder and first President has presented, in the delightful style which we all came to know in Movie Makers under the pen name of Dr. Kinema, a fascinating and informal memoir of his father, Sir Hiram Stevens Maxim. It is the 1870's, and Hiram Percy is a youngster growing up in reverent and often amazed awe of the bearded, dynamic and unpredictable genius who was his father. Amusing and human to the core, the book presents as good a picture of its author as of its subject.

Alec Brooke, ACL, whose home is in Kenilworth, England, is the movie maker we envy this month. For his was the rare opportunity of going down Southampton water on the chief working tug when *R.M.S. Queen Mary* came in from her maiden eastward passage. The result is four hundred feet of as fascinating Kodachrome as you would care to see. Naturally, from such a favored and mobile position, Mr. Brooke managed to catch the new queen of the seas from just about every distance and angle, so that when you get through the reel you know pretty well the sweetness and majesty of her fine hull, lofty masts and serenely British funnels.

War in Ethiopia was filmed on 16mm. by James A. Mills

Cinema Privé

A cinematic donkey wonders if he could get a few tips

Awards offered in the amateur filming contest held this past summer in connection with the Third International Canoe Race, over 125 miles of the Saint Maurice River to Trois Rivieres, Quebec, Canada, will be made the first of this month, according to Duncan MacD. Little, ACL, of New York City. Mr. Little was a codirector of the contest with the Hon. Arthur Bergeron, Deputy Minister of Highways, in Quebec, and was in particular charge of entries made by visiting American movie makers. At a special screening of amateur films held in conjunction with the race and the contest, Mr. Little presented his Movie Makers award winning picture, *The Making of Canadian Homespun*; other features included *Tambo* and *In The Beginning*, both by Fred C. Ells, ACL, and *Life at a Manouan Mission Station* and *Wild Life of the Mauricie*, by l'Abbe Albert Tessier, ACL.

If you don't live around New York City, you may not be familiar with a new and immaculate fleet of taxicabs which have flooded the streets of late. Officially, they're known as the Sunshine-Radio cabs; familiarly, as the Sunnies. The point is that each of these streamlined beauties has a large sliding hatchway in its cast steel top—left wide open in sunny weather, slid shut in the rain or snow. Well, the other day who should walk into the League offices but James Zeder, ACL, of Detroit, bent on a hurried filming trip around New York. We drew up a picture schedule that was enough to keep anybody busy for two days, under ordinary conditions. Mr. Zeder had but one afternoon. "Why not," said he, "get a Sunny, slide the hatch back and stick myself and the camera out the top?" Why not, indeed, we admitted; and off he hurried to do just that.

Down in South Texas, a thousand head of beef cattle in a single roundup appear to be no great job, if you look at the movies and listen to Tom D. Park, ACL. Near Laredo, it seems that they think nothing of 20,000 head turned loose on 300,000 acres of range. That is the sort of place, anyway, which Mr. Park has pictured in *Callaghan Ranch*, an 800 foot, 16mm. record in monochrome and color of Texas cattle ranching. Slow and deliberate, made more for the rancher than the ordinary public, his film gives you a pretty thorough picture of a big job, well done. Roundup, cutting the herd, dipping, dehorning and inoculation, all are there in a film that is clear cut and reassuringly steady.

Book reviews

■ *How to Write a Movie*, xvi plus 199 p., cloth, by Arthur L. Gale, ACL; The Brick Row Book Shop, Inc., New York City; $2.00.

Most books on technique make dull reading. They may be informative. They may be illustrative. They may be statistical. But the truth remains that they are extremely dull.

Now along comes a book for the movie maker that is bright, briskly written, fat with facts and alive with original ideas. I predict that *How to Write a Movie*, by Arthur Gale, will be well thumbed and dog eared before its life is done.

Anybody who owns a movie camera should own this book. Anybody who cannot own it should borrow it or steal it. For, although its title reads *How to Write a Movie*, it is an all inclusive guide on subject matter and film planning for the movie maker. There are chapters not only on scenario writing but on continuity, film treatment ideas, plot, adding sound to films and color. There is a sample scenario, there are numerous examples of continuity and cue scripts and there is even a glossary so that the cameraman can speak in the proper terms of his work.

The chapter on short subjects suggests dozens of subjects as well as prescribing for their treatment. The chapter on plots is rich with patterns which not only a novice but a novelist may do well to copy.

Here is a banister for the beginner and a bible for the expert. Mr. Gale has done a splendid, workmanlike book which is both illuminating and inspiring.—*Beth Brown, ACL.*

■ *Enlarging Manual*, 77 p., paper, by Sigismund Blumann, F.R.P.S.; Photo Art Publisher, San Francisco; 50 c.

This very human little book seems to have more sound advice and workable information than many a tome three times its size. While it does present personal opinions of the writer, and in rather strong terms, it nevertheless gives sound information. It is the sort of book that any interested amateur could pick up and read without being overwhelmed with technical data which might make him refrain from even again thinking of photographic enlarging. All the data necessary for making good enlargements are found in this noteworthy little book. —*F. G. B.*

■ *Colour Cinematography*, 350 p., cloth, by Adrian Klein; American Photographic Publishing Co., Boston; $7.00.

In compiling this exceedingly valuable volume, Major Klein has drawn from the vast amount of research that has been done on color processes in the past history of the motion picture. Not only has he given a clear description of the various methods by which color was achieved on the screen, but he also has given a large amount of helpful data on color photography and its theory. Any student of motion picture technique should be delighted to have this volume at hand. Only then can he realize what a tremendous accomplishment color motion picture photography represents.

■ *Trick Effects with the Cine Camera*, 79 p., paper, by H. A. V. Bulleid; Link House Publications, Ltd., London; 2/—.

The theory of tricks has been explained carefully in this little book, and it should prove a working basis for the movie maker's ingenuity. The principles of trick photography are illustrated with well chosen examples and will lead the enterprising amateur into many new and effective film and camera manipulations.

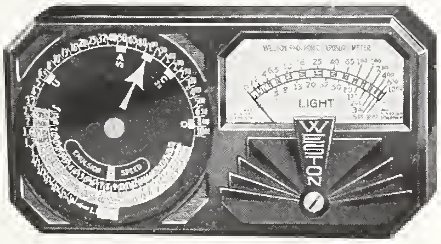
■ *Movie Parade*, 142 p., cloth, by Paul Rotha; The Studio Publications, Inc., New York City; $3.50.

This picture book is a splendid collection of still photographs and frame enlargements of theatrical motion pictures, from the era of *The Great Train Robbery* to the present period. The photographs, selected from nearly six hundred motion pictures, are divided into three main categories: Films of Fiction (subdivided into Adventure and Melodrama, Comedy, Romance, Historical and Chronicle, Fantasy, Drama and Epic); Films of Fact (Newsreel, Record and Magazine Films, Travel Films, Instructional Films and Documentary): Avant Garde and Trick Films.

Mr. Rotha has exercised amazing care and diligence in gathering the material for this pictorial review of the cinema. It was not an easy task, because still pictures of movies are ephemeral, and it is only comparatively recently that we have become conscious of the importance of preserving the records of the cradle period of the movies. So Mr. Rotha has performed a valuable service in collecting and organizing this material in permanent form.

In such a compilation, rejections are sometimes more significant than selections, and any critic or student of the movies is likely to disagree with Mr. Rotha on a number of points. The still pictures selected to represent *Tabu* and *Man of Aran* give a very faint idea of the cinematic worth of these achievements. Neither *The Fall of the House of Usher* nor *Lot in Sodom*, both American experimental films, by Dr. J. S. Watson, jr., ACL, and Melville Webber, are included, although they are held by many critics as peaks of avant garde endeavor. Certainly, they had more technical influence on motion pictures than most of the experimental films represented. Again, in the instructional film category, the American contribution is ignored.

—DURING FALL
AND
WINTER MONTHS"



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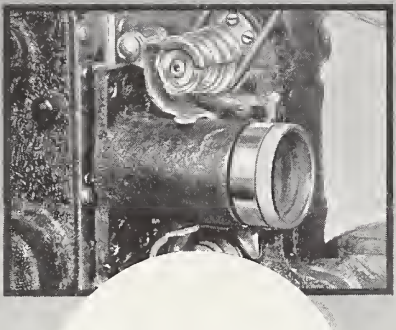

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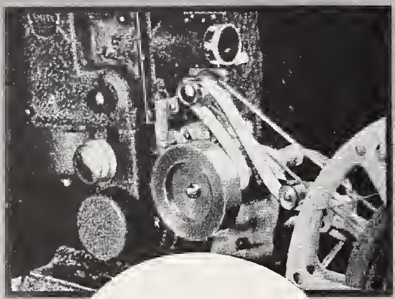

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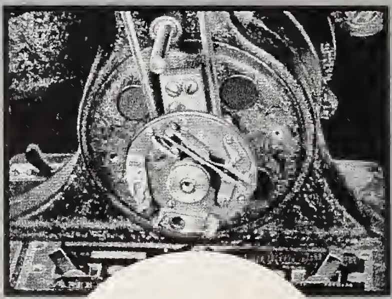

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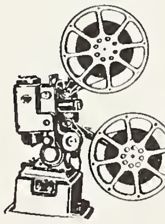

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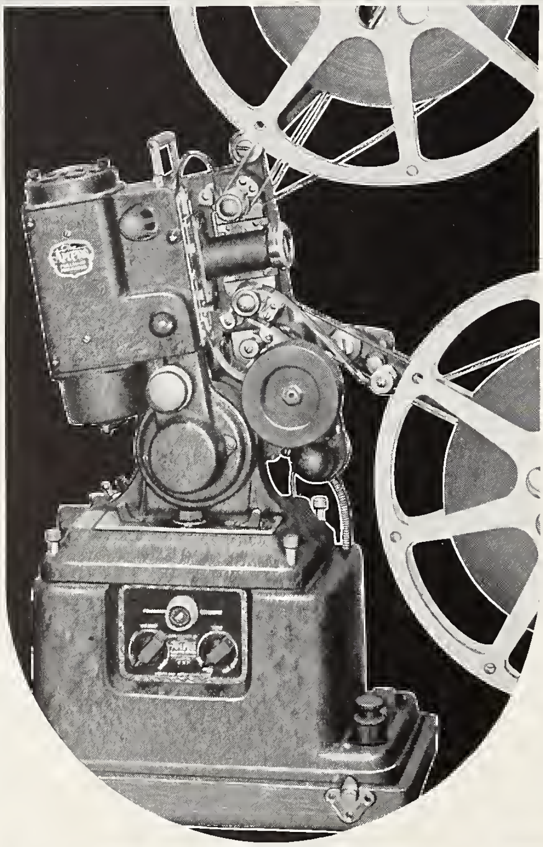

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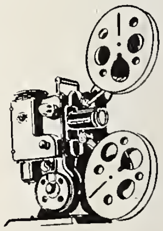

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Record them now

A VERY practical and happy answer to the old question of what to film during the closed season is found in recording the familiar faces and intimate surroundings with which we live constantly. It is all too easy to put off this pleasant chore. The excuses come trippingly to support our delay—film should not be wasted on everyday scenes; we see members of the family all the time and have no need to put them on film, except, of course, the growing children; we live in the home, so why film it? It is more sensible, we say, to spend our film budget for footage of unusual things.

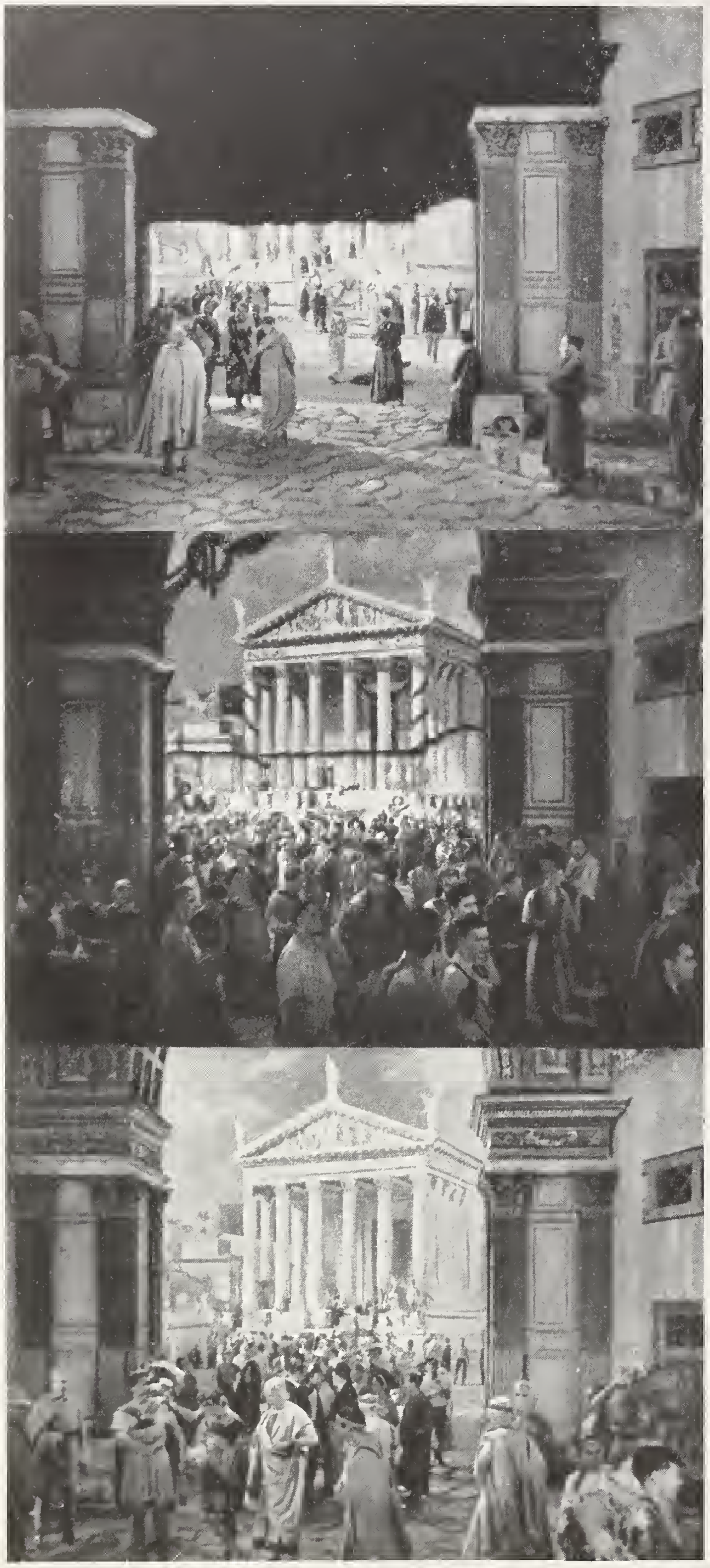
But is all this so sensible, after all? It is difficult for us to link the tragic impermanences of life to our own circumstances. We learn of the death of a friend's mother or father and we are full of sympathy, but it does not strike home. We read of a flood, an earthquake or a fire and we are shocked and distressed, but it is a tragedy of elsewhere. Yet, every one of these elsewheres is somebody's here and now. There is no guaranty that the next will not be our own.

A realistic approach to familiar filming need not be made because of these solemn facts alone. The sole reason for making a movie record of our homes and those who live in them is not that they may be gone tomorrow. These subjects, in themselves, are a deep mine of cinematic satisfaction. Filming them requires no gathering of a cast nor elaboration of "properties"; it does not call for a special trip to some rare photographic area. Pictures of them may be made with all the comfort and ease of ordinary home life. A few flood lights, fast film (if we prefer it), colored or monochromatic, and we are ready. The family group at table, in the library, at the radio, in front of the fireplace, doing what its members do habitually, affords the scenes and the action. There is every opportunity for interesting composition and lively continuities. Exposure and focus can be planned in advance, which lessens the chance for something going wrong during the actual filming. No more elaborate basic idea than "why we like our home" is required, because upon this simple plan can be built a related set of sequences to illustrate it in terms of the interests of each member of the family.

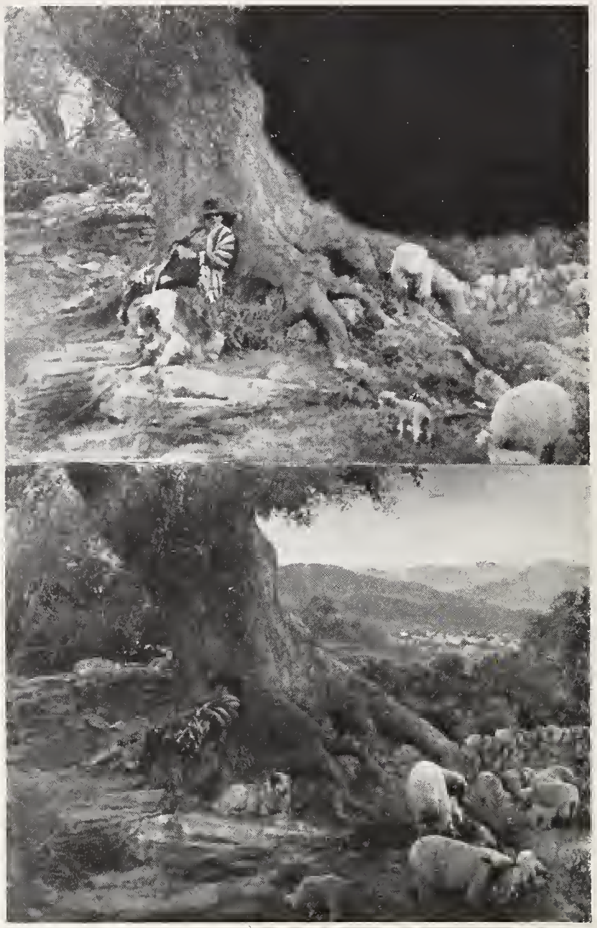
Here is, indeed, a pleasant chore that is subject to infinite and varied repetition. It carries our cameras into the family life and enriches that life correspondingly. It safeguards us against that feeling of incalculable regret that must come if those near to us are taken and if disaster blots out the home, when they are yet unfilmed, because we did not manage to get around to the filming.

The indoor cine season is ideal for doing these things. If we film in the open, we are close to warmth and shelter, and our excursions into the cold need not be over long; if we are unwilling to poke our noses into the braw winds outside, our cameras can be active in earning their dividends of absorbing occupation and priceless family records indoors, during those months when far too many of us tuck them on the shelf to sleep until spring.

Because we should be interested in getting full use out of our cine equipment all year round, because we can practice our hobby most congenially and, above all, because we must not let the familiar present fade away into the vanished past, with no films ever to recall it, we should resolve this winter to make those family and home records that may be forever beyond us if we do not get them now.



At top is a set constructed for "The Last Days of Pompeii." The lower portion was built high enough to cover the action of the actors, while the upper portion was to be completed by painting on glass. The middle frame enlargement shows the addition of the glass painting. Here, the lighting on the painting has not yet been balanced to match the illumination of the set. In the frame below, the lighting has been balanced completely. The camera is photographing simultaneously the action seen through the clear portion of the glass and the painting on the glass.



Frame enlargements from "Dancing Pirate," filmed in Technicolor. Above is the set before the painting was added to the glass and, below, is a frame from the completed shot. The painting in this case had to be in color.

MOVIE
MAKERS

It's done with glass

EARL THEISEN

WHEN a special skyline or unusual static scenery is needed for a motion picture production, a glass shot is used. By means of a glass shot or, as it is sometimes called, the glass matte, it is possible to add certain desired features to a scene or to increase the size of the setting according to the specific requirements of the story.

Stripping the process of all technical details, it consists of two steps. The first is photographing a set and actors through a sheet of glass set up a few feet in front of the camera. Certain portions of this glass are painted with a dead black opaque matte which will block out an area for a skyline, roof tops, background scenery or whatever is to be added to the scene. When the negative is run through the camera, the matted portions of the glass will leave similar portions of the negative unexposed.

The second step in the process consists of covering the opaque matte with a painting of the desired additions to the scenery, required by the story script, and making a second exposure which will register the glass painting on the film.

When the glass is first set up between the camera and the setting, the artist and cameraman carefully paint on the opaque matte by looking through the finder of the camera. In this way, the architectural lines of the setting can be followed carefully in the application of the matte paint. Such portions of the setting that are to be eliminated are painted over on the glass by observing the progress of the painting step by step through the camera finder.

After the portions of the setting not desired are blocked out, the camera lens "sees", through the transparent area, only the part of the setting that is to be included in the final scene. The actors then are photographed through the glass while enacting the required rôles.

Now a second glass, on which is painted the picture desired to fill the unexposed parts of the image, is lined up correctly in front of the camera so that the painting matches and blends with the previously photographed scene.

The architectural lines in the painting are made to correspond in perspective to those of the setting so that, when the painting is photographed, the line where the painting and setting meet is blended exactly. After the painting is so lined up, it is photographed.

In this way, for example, an exposure of a scene of actors, with a background of the ground floors of buildings, is combined with the exposure of the painting on glass of the desired roofs and skylines which complete the picture.

The motion picture studios have groups of what may be called "stock" street and village settings. These settings consist of "prop" buildings composed of only the lower fronts of various types of stores, such as would ordinarily comprise the average street. The buildings are constructed to a height of about ten to twenty feet so as to provide a background for pedestrians, traffic or other street activities. The additional floors and roofs are not constructed but are added by means of a painting on glass.

Such "stock" street scenes facilitate the production of pictures and save the studios vast sums of money. The same buildings are used again and again but, by altering the roofs, adding more floors or changing the architecture in some slight degree, an effect of an entirely new street is created according to the demands of the story. This is done with the glass matte.

By the use of this technique, it is possible to gain the effect of a vast structure, such as a castle or a skyscraper, and yet construct but a small part of the building. Only enough of the ground floor is built to cover the field of action. By painting the rest of the scene on glass, the expense of the elaborate construction is saved and, incidentally, a better screen effect usually is gained because the artist may follow more closely the exacting requirements of the script and camera angles.

The glass matte shot is particularly useful in bringing to the screen many of the scenes representing a precipitous canyon or desert location. In a desert scene, for example, a comparatively small patch of sand (enough to cover the action of the players) may be amplified by a painting, to look on the screen as if the film were photographed on a vast rolling desert. Thus the studio can avoid sending an elaborate company of actors, technicians, cooks and helpers on an expedition into a hot desert. By using glass shots, sand dunes within a short journey of Hollywood studios are sufficient.

There is, of course, the handicap that action or movement may not be added or simulated in those sections of the scene filled in by the glass painting. In other words, when a glass matte shot is used, action must be confined to a rather limited portion of the scene. This is not the case with rear projection or other processes in which the atmosphere background movie itself may contain action. These processes introduce the background by means of a motion picture image, while the glass shot is an immobile painting.

Despite the limitation of the field of action, the glass shot has the very decided advantage of adding to the film whatever beautiful composition the artist may create. With this process alone, one can complete the architecture of partially constructed buildings. With no other process is it possible to match the perspective and architectural lines of the set.

Glass paintings are not simple, since the picture must be photographic in technique. The details, tone values and harmony of all parts of the painting must resemble a photograph and must match the perspective and pho-

[Continued on page 491]

What you want you get in Hollywood by glass painting

H. Armstrong Roberts

Here's a shot to follow title one in this continuity

Odd jobs

BETH BROWN, ACL

And we don't mean the stunts of the home handy man

A LONG time ago, I discovered that the thing that interests people most in all the world is other people. That's why crowds congregate. People love to jostle and stare and step on each other's toes. They want to see what makes their neighbors tick. They want to study what they wear—hear what they say—and know what they do.

And when they do something that's interesting and unusual—then it's more than merely news. It's a movie.

It's the movie we're going to make—you and I together.

Most of the shots you probably have on hand. Take a look about you, and you'll discover a dozen odd occupations and twice as many avocations. The local newspapers will be glad to help you dig up the odd characters in your community. The Ladies Sewing Circle—the social clubs—the labor unions—are other sources of hidden treasure. If you live in New York, where there's a Red Book to guide you, you'll unearth two hundred odd professions, from folk who make outdoor dining cars to those who manufacture glass eyes for fur pieces, a profession, incidentally, that's kept a profound secret and handed down from father to son.

Most of the footage that I was given to title concerned itself with workaday folk, but you can insert dog fanciers and tennis players or stamp and butterfly collectors, for that matter, and still be within the rules of the reel.

The subject is so flexible that you'll find writing the titles a very simple matter. To suit my outdoor shots, I began with:

Title 1. *You've got to get all dressed up to go down to this job—*

Here I used a deep sea diver. But you could show an actress in intricate costume, making up to go on stage. You can even utilize one of your own stars getting ready for the camera.

Title 2. *You're no sooner hired on this job than you're fired!*

I was fortunate enough to secure an odd length of film depicting a circus performer being shot out of a cannon. If this shot is too difficult for you to procure, substitute "firing" for the last word of the title and use a scene of a fireman at work in an engine cab or boiler room.

Title 3. *If you want to sit on top of the world—try this line of work.*

Here comes a shot of a flag pole sitter, a church spire painter or a steel worker on a skyscraper.

Title 4. *Don't look down on your job—or you'll never hold another.*

Here insert a trick shot, something taken at a clever camera angle looking down from a vast height. Make your audience dizzy.

Title 5. *You've got to stick close to this one to get anywhere—*

I had some footage of a professional human fly to work with in this sequence. But a house painter, sign painter or window washer working from a precarious height will do nicely as a substitute.

Title 6. *—and the whole world will look up to you!*

Cut in an exciting moment—perhaps the scaffold shakes. Or use a reaction shot of a crowd of youngsters.

Title 7. *Some train hard but get nowhere.*

I used a shot of a bicycle rider going around a saucer. If you haven't one, substitute a motorcyclist or an auto racer. In case these fail, get a chap in a track outfit to sprint around a circle.

Title 8. *Some must know their work backward.*

This could be a reverse action, slow motion shot of men shoveling. You may not need the slow motion.

Title 9. *If you don't like this job—as a last resort—*

Use another of your various jobs—anything from a sheep herder to a doorman.

Title 10. *—you might pick this up.*

Here comes a shot of the white wings in action or of garbage removal.

Title 11. *But no matter how you look at it—the other fellow's pasture is always greener!*

This would be your best shot, of course.

Don't be too serious in this picture. Make your audience laugh. Make your shots unusual and unexpected.

You might pose your best girl on a wooden carousel, reaching for the elusive nickel ring overhead. You might go indoors and shoot a book collector at home in his library. You might shoot the Wall Street broker whose favorite avocation is marine painting. You might even shoot the odd job the family cat sometimes takes upon herself—when she brings up a litter of motherless pups. There's no end to the odd things in the world—no end to what people do in their odd moments.

Which film?

CARL LOUIS GREGORY

That depends upon the purpose to be served by its use

PERSONAL movie makers are puzzled sometimes by the question of which film to use. However, it is quite safe to say that most brands of film offered for sale—and all those offered by reputable companies—are of very high quality and will give excellent results when they are used for the particular purpose they are intended to serve. But their use presupposes an intelligent selection of the particular kind of film most suitable for the task in hand, its proper employment and a proper treatment, afterward, in processing. No single film can cover the range of all kinds of cine work any more than one grade of printing paper can be suitable for all kinds of negatives, or one kind of film or plate desirable for all kinds of photographic work.

The price of film is not a guide to its suitability for any certain kind of movie making. Price often must enter into consideration, especially in commercial work, but sometimes the lower priced film is best for the job, while, on the other hand, the highest priced film may be the only one that will give satisfactory results and is, therefore, cheaper in the end.

All substandard film is coated on acetate, or non inflammable, base. One need not fear, in using unfamiliar grades of substandard film, that a fire hazard will be created. The film base is the same, and it is the light sensitive emulsion coating on that base which determines the film's photographic qualities.

Of the many kinds of reversal film advertised, and which can be purchased with the processing charge included, there are five general classes. These are color blind positive, orthochromatic, regular panchromatic, supersensitive panchromatic and color film.

Color blind film is lowest in price and slowest in speed, but, for the amateur who seldom bothers with filters, who is not hypercritical about color values and subtle tones and who shoots exteriors only, under good light conditions, it is very satisfactory and economical. It lacks a non halation backing, so that halation is often present when light objects are filmed against dark backgrounds.

Orthochromatic is a term derived from two Greek words, *ortho* and *chroma*, meaning right and color, that is, right color or correct color. The word is a survival from the dark ages of photography, when motion pictures of any kind were only a bright dream of the future. The first emulsions made for photography were slow and sensitive to blue light only. Green, yellow, red and the other combinations of the warmer shades at the lower end of the spectrum had almost no effect on these emulsions and were consequently rendered as tones of very dark gray or black. Tone values of colored objects were rendered in half tones that were quite different from their brilliancy as seen by the eye. When it was discovered that certain dyes, added in small amounts to the emulsion, increased its sensitivity to yellow and green very markedly, the resultant film was christened "orthochromatic," because it reproduced colors in gray tones more nearly right, or correct, as viewed by the eye.

Today we regard panchromatic as much more suitable for correct rendition, but the old term, orthochromatic, is still applied to film which is most sensitive to blue and to the upper register of the color scale. Orthochromatic film requires about the same exposure as ordinary panchromatic and about two times as much as supersensitive panchromatic. Orthochromatic is sensitive mostly to blue light, and slightly to yellow, but is almost insensitive to green and red. Of course, color blind positive is also insensitive to red. This means that, when color blind or orthochromatic film is used, all reds will appear dark on the screen.

Filters can be used with orthochromatic film, but only certain types may be employed. In bright sunlight, the lighter colored, yellow correcting filters may be advantageous. Dark colored, yellow filters should not be used with orthochromatic film, because they cut down the light, to which the film is sensitive, so much that a fully timed exposure cannot easily be made. An exception is made to the ban on deep toned filters, when moonlight effects are made by pointing the camera toward the sun for waterscapes or clouded sunsets. Here, underexposure is intentional, and the use of a heavy filter not only cuts down exposure, but tends to reduce the halation in the highlights. Red filters must not be used with orthochromatic emulsions.

In the main, where there is an abundance of natural light and where tonal values of colored objects are not highly important, orthochromatic film gives

[Continued on page 490]

Publishers'

This scene calls for supersensitive panchromatic film

Critical focusing

Technical reviews for the amateur cinematographer

"La Kermesse Héroique" ■ Tobis. This French film is a compound of droll charm and robust comedy so well constructed and so happily paced as to merit, in this reviewer's opinion, the international awards and the press acclaim that have been bestowed upon it. Movie makers will admire the unity of the scenario, the subtle manner in which each incident is evolved and the tempo of the dialog. Interesting, too, is the handling of the dialog titles in English, double exposed at the bottom of the picture. This is an amazingly satisfactory job.

Camera angles: When the women of the Flemish village of Boom go out to receive the Spanish Duke and his troops, they are pictured in scenes made with low, slightly upward angles, with the advantage of emphasizing their carefully arranged mourning dresses and featuring their expressions as they pass. Similar low angles are used effectively in many other instances in the picture.

Follow shots: When the mayor and his wife are arguing about their daughter's marriage, they are walking through the village, and various citizens overhear them. The whole sequence is presented with the aid of traveling camera scenes which carry the main theme and include the villagers' reactions as the couple pass by. Other well handled traveling shots are used when the Spaniards enter and leave town.

More elusive but more important than any technical contribution in this picture is the spirited way in which it captures the flavor of the early Seventeenth Century—the late Renaissance in Flanders. In the matter of recreating a historical period, and doing it delightfully, this film is certainly supreme. *La Kermesse Héroique* is also released under the title, *Carnival in Flanders.*

"Dodsworth" ■ United Artists. *Continuity:* Here is an example of one of those motion pictures that are the end products of a three stage transmutation—a book, a play and finally a motion picture—and it furnishes the movie maker with material for an interesting study on that account. The continuity is episodic, the treatment lacks unity and the whole affair has lost its original subtlety, in spite of the fact that it is well staged and well acted.

Rear projection and glass shots: Readers of the excellent articles in Movie Makers, by Earl Theisen, concerning the various methods of adding foreign scenes and atmospheric backgrounds to shots, without actually taking the cast to the locales represented, will be interested in the number of examples of this trick work to be found in *Dodsworth.* A Paris street scene is shown with the actors at a window in the foreground; other Paris scenes are matched with staged outdoor action. It is interesting to note the way in which scenes using these effects are interwoven with other shots, so that the audience does not have the time to detect the slightly unreal quality that can be discovered by careful study.

"Girls' Dormitory" ■ Twentieth Century-Fox. *Closeups:* Those who see this picture to study the new star, Simone Simon, will have adequate opportunity, for there is a generous use of closeups in all sequences. These are not of the extreme variety, but the emphasis on facial closeups is very noticeable and very effective, except that it has a tendency to slow down the tempo. The closeup technique is well justified, for the story is an emotional and mental drama rather than a tale of action. Characters and their reactions are all important, and the general action is as much of a background for the story as the sets themselves.

Pattern: One sequence of the girls in a fencing drill recalls again the fact that rhythmic exercises filmed at a slight diagonal and downward angle are always effective cinematic patterns on the screen. Here the girls, in white uniform, make a beautiful pattern of black and white. The sequence ends with a traveling camera shot in semi closeup down the row of girls, the view finally resting on Simone Simon, who is called out of the line.

"Rain" ■ Joris Ivens. *Short subject treatment:* Here is a picture that could be produced in its entirety by any amateur movie maker and, in fact, Mr. Ivens, the cameraman producer of this decorative study, is a quasi amateur himself. The theme of the picture is simply the coming and passing of a heavy shower, and it is presented without titles. There is a musical accompaniment which doesn't help matters particularly. There are many interesting viewpoints and happy compositions—for example, overhead shots of a group of umbrellas in the street below, closeups of rivulets of rain running down an umbrella point, scenes made through shop windows, as the sheets of water strike them, and so on. Yet this theatrical short suffers from the most amateur of complaints: the camera is not steady!

Tobis, courtesy Filmarte Theatre

This moderate angle is in "La Kermesse Héroique," a comedy

A low camera view gave this scene a dramatic emphasis

William M. Rittase

There are two kinds

EPES W. SARGENT, ACL

ONLY lately, a newcomer confided to me that he wanted to learn how to make movies before he went in for camera angles. When I explained that he would not be able to make good photographs without considering angles, it came out that he had the wrong idea. Probably lots of others suffer from the same delusion.

This novice had gained his ideas from *Variety*, with Emil Jannings, with its shots of the gymnasts up in the dome of the variety theatre. He seemed to think a scene did not represent an angle unless he climbed a tree, dug a trench or committed some other foolishness to get a unique placement for his camera. Those, of course, are camera angles, and the ones most talked about. But a little of that sort of thing goes a long way, and freak shots should be used in moderation. There is another and far more valuable side to angling, available to the veriest novice and helpful to the exact degree that intelligence enters into its use.

It is not much more than twenty years ago that all studio shots of action on a set were made at dead center and from a determined height. Only very occasionally was the camera tilted to cut the floor at the front line. Most of the time, the lens was centered to cut the camera field about two feet above the floor, giving a larger figure but amputating the legs of those in the foreground.

Then some genius came along who figured that perhaps a certain grouping would look better from one side of the stage than from the center. It was early discovered that one man took best in full face, another when the right side of the face was turned three quarters full. A third might have an excellent profile. Those early cameramen "angled" the subject instead of the camera, but it was much the same idea.

Angles, or changes in camera viewpoint, also were used frequently when it was desired to hold the action for an extended time in one set. A fifty or one hundred foot shot of an interior seemed to drag interminably, but ten or fifteen shots of a continuous action broke up the monotony. That's one use for the angle today. The camera can be moved to fresh viewpoints, either to break a long scene or to gain a more advantageous viewpoint for some particular grouping. Another use is to follow the action into a remote corner of the stage. In this form of angling, it is good practice to start with a dead center shot of the scene to establish the locale. It is also good practice not to jump around to the point of frenzy. Generally, it is best to hold the camera in one viewpoint long enough so that a definite section of the action may be completed before shifting the setup. But, like all other rules, this sometimes can be broken to advantage.

All the above are usually done from about the same camera plane, but there is also another use for angles. Bill is sitting in a chair reading a letter. Put the camera behind him for a semi closeup. Later, you make a copy of the letter and cut it into this shot. The view over Bill's shoulder does not have to be a long scene, in fact it should not be, but it lifts the curse from the sudden introduction of the insert. In the same way, you can shoot over the shoulder of one of the players to show a card table, writing a letter or any similar effect. Generally, the camera should be above and slightly to one side of the subject.

On the other hand, perhaps a note is passed under cover of a table, or you may want to show the villain getting a gun out of his pocket. The camera is brought forward toward the floor and either shoots direct or upward. But do not be too eager to climb the ladder or sprawl on the floor. Use such an effect only when it works smoothly into the run of action and only when it has definite significance. In other words, do not film angles just for the sake of novelty. You may interrupt, and possibly spoil, the scene.

Sometimes it is valuable to suggest that the picture has been made from above the set, as from a stairway. This permits you to give a more revealing view of the entire scene of action. If you shoot from the level, the players in front will shut off a view of those in the rear. Shooting down at an angle of from forty five to sixty degrees will permit you to look over the heads of those in front to pick up the rear rank too. This works nicely in picturing a party, for instance, with all the dancers getting a chance.

Shooting directly down on the set is useful, as a rule, only in Hollywood musicals, but now and then there may be an excuse. You may recall *The Girl of the Golden West*, in which the fugitive, in an upper floor of the shack, peers down on the girl and the sheriff through a gap in the

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Camera angles are practical and not merely unsettling

Reo Bennett

Home industry of the Brazilian is one cine subject

Rio reels

REO BENNETT

THE charm of Rio de Janeiro as a movie maker's paradise is due to the great diversity of subjects available in so small a radius. There is sunshine, and such sunshine! There are mountains of such fantastic contour as to have set such supermen as Darwin and Agassiz to pondering and explaining how nature ever devised them. There are tropical verdure, great forest trees, palms, ferns, creepers, vines, air plants and flowers. Then there is the ocean, with its bays and inlets and lagoons. Finally there is a great city, the largest tropical city in the world.

This glamorous city, which has been the only seat of a European country to be established in the Western world, is replete with traditions of its Iberian founders—narrow streets, old churches, ancient palaces. It is also the most modern of cities, as its sky scrapers, hotels, buses, formal gardens and airports will bear witness.

Possibly the greatest appeal of this unusual metropolis is the intimacy in which its people live with nature's various manifestations. Mention a mountain to the average man and he postulates guides, Alpine staffs, hobnailed shoes and what not. Your true resident of Rio de Janeiro calls a taxi or takes a street car if he would go mountaineering!

The ocean, or the bay, is at his door to be bathed in or navigated, and the forest, which dominates all, is almost a menace that must be watched, for fear it will encroach upon the places sacred to man.

What to film in Rio de Janeiro? The geologist would go after the Pao de Assucar (Sugar Loaf) and Corcovado (Hunchback), each accessible by an ingenious transport system devised especially for the problem. He would film the great Gavea and the Finger of God across the bay in Theresopolis, all strangely formed mountains, chipped out of the ancient crystalline material during eons of time by the effects of heat and cold and wind. Then there is the Dantesque Furnas de Agassiz, a spectacular pile of gigantic boulders mistaken by the great Harvard scientist as glacial evidence, today Rio de Janeiro's most popular picnic ground.

What a paradise is Rio de Janeiro for the movie maker who loves trees and forests and plants! King Joao of Portugal, an imaginative and constructive old gentleman, personally founded the Jardin Botanico of Rio de Janeiro. He sent a fleet to the four corners of the tropical world to gather plants appropriate for introduction into Brazil and he planted and propagated them in the Jardin Botanico. He was advised by competent authorities, so that here, today, one may see a park as spectacular as a theatrical set.

What might find a place in films of southern city

The tall "Mother Palm," planted in 1821, from which all the royal palms of Brazil are descended, is here graced by a marble bust of the Royal Patron. Then there is the Jaca tree (John tree) of India, which bears the largest fruit known to science. There are camphor trees from Japan, an avenue of clove trees from Zanzibar, travelers' trees from Madagascar, litchi trees from China, the breadfruit tree from Tahiti, the kola tree from Africa, the lotus from Japan, the Victoria Regia from the Amazon, a pond lily which has the largest leaf and the largest flower of all known plants. There is an orchid house and a cactus house, and tree ferns, and all the bamboo family; in sooth, there is all that is strange or useful from the isles of spice and far Cathay. Here is material for a magnificent sequence, and it might pay to make some extra shots for use in other reels.

But it is not alone in the exotic Botanical Gardens that one may seek his vegetal thrills. Wherever one goes in this City of Forests, he will find novelty for his cine camera—the trip to the top of the mountain, Corcovado for example. This trip may be made, most of the way, on macadam roads by automobile and all the way by an electric rackroad, such as those that give access to the mountains of Switzerland. This road passes through forests as virgin today as in the days of the discovery—great trees, vine hung, branches adorned with epiphytes of every known order of moss, lichens, orchids and bromelias give one an idea of the primeval forest of the tropics that he would have to go far afield to duplicate, and all may be seen from a slow moving rackroad car.

Or again, one may make a trip to the Sugar Loaf in a car hung from great steel cables. As one ascends, a panorama of mountains, forest, city and ocean unfolds, and the car makes a perfect camera truck for traveling shots. These Brazilians know how to take advantage of their natural wonders. As one approaches the summit of the great rock, he finds that what is apparently cold, hard rock is in reality a vast garden of air plants—tilandisia, with pink and purple blossoms, cactus and bromelia, the kind we see at the present time in all the florists' shops.

A lovely sequence can be made from the top of this noble outlook when, in the late afternoon, the city lights are turned on. As evening approaches, the lights go on in section after section of the city, giving the illusion of handfuls of sparkling brilliants being strewn over the landscape.

Right in the center of Rio de

[Continued on page 499]

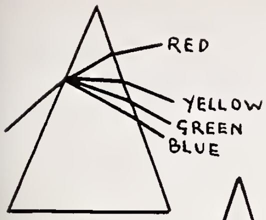

Fig. 1

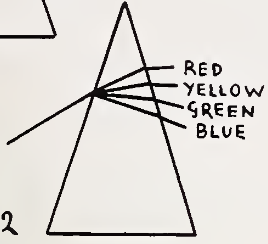

Fig. 2

An optical excursion

R. FAWN MITCHELL

Basic lens facts and problems that lens makers meet

THE importance of fine quality in cine lenses is quite understandable when one considers how much the small amateur movie picture frame is enlarged when screened. For instance, a frame of 16mm. film is approximately one quarter by three sixteenths inches in size. It is .12 square inches in area and it is magnified 14,400 times when shown on a three by four foot screen. Considering that the industrial user sometimes magnifies the 16mm. film image 130.000 times to show a twelve foot picture, it readily will be seen why so much stress is placed on the importance of the lens. The lens, of course, is only one link in the chain, but it is vital.

The following presentation covers, in as simple a way as possible, some of the fundamental optical facts and principles from which the modern cine lens has been evolved. An understanding of these principles will assist in understanding your lens.

A "simple" lens can be considered as nothing more nor less than a prism of changing angle, or perhaps it may be easier to visualize a lens as being made up of an infinite number of prisms—or parts of prisms—as shown in Figs. 3 and 4.

Fig. 3 shows how the different parts of the lens tend not only to focus each ray as a small spectrum, but also to focus them at different distances. To express it in photo optical terms, the different zones of the lens have different focal lengths.

It is obvious that the rays X, Y and Z could be focused at one point if the curvature of the lens was such that the prisms, or parts of prisms, ABC, BCED and DEGF respectively were each of the correct angle to refract the initial rays to a common focal point. A parabolic curve has this property, but parabolic curves are especially difficult to grind and more so to duplicate in quantity production. Thus the cost of such lenses would be prohibitive. Furthermore, parabolic curves do not compensate for the chromatic error and other aberrations which trouble the lens designer. In order to design the simplest cine lens, the designer has to balance at least eight primary or vitally important factors, all of which have to be correct within very narrow tolerances.

It takes several weeks, of what is perhaps as laborious a calculation as encountered in any work, to trace enough rays through a lens design to determine if the required balance of conflicting elements has been secured. Changing one factor throws everything else off, so if the first, second or twentieth lens formula is not right, the calculations have to be repeated. Then, if the designer should happen to be interested, there are fourteen additional, tertiary aberrations which should, strictly speaking, be figured out. The lens calculator has plenty to occupy his spare time. We will not attempt to do more than to review casually some of the most important factors usually corrected very thoroughly.

Here are fundamental problems faced by a lens designer:

1. *Spherical aberration:* Rays from margin of lens do not focus at the same place as those passing through the central portion. (See Fig. 3.)

2. *Chromatic aberration:* Different colors focus at different places. Different types of glass have different "dispersions"; i.e. refract different colors to different extent. (Figs. 1 and 2.)

3. *Distortion:* Straight lines focused as curves, especially at edges of picture. (See Figs. 7 and 8.) (This is overcome by placing diaphragm between lenses of opposite "curvature".)

4. *Curvature of field:* Inability of lens to focus on a plane surface. (See Fig. 9.)

5. *Coma:* Spherical aberration of oblique rays. Oblique rays from a point focus as a series of points in the shape of a cone, or comet—hence the name.

6. *Astigmatism:* The focusing of crossed lines at two different points: e.g. one line of a cross would focus sharply

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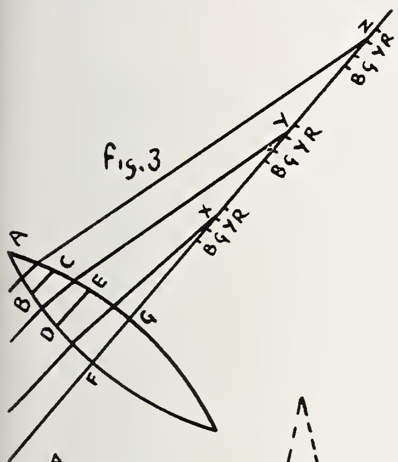

Fig. 3

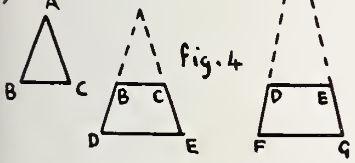

Fig. 4

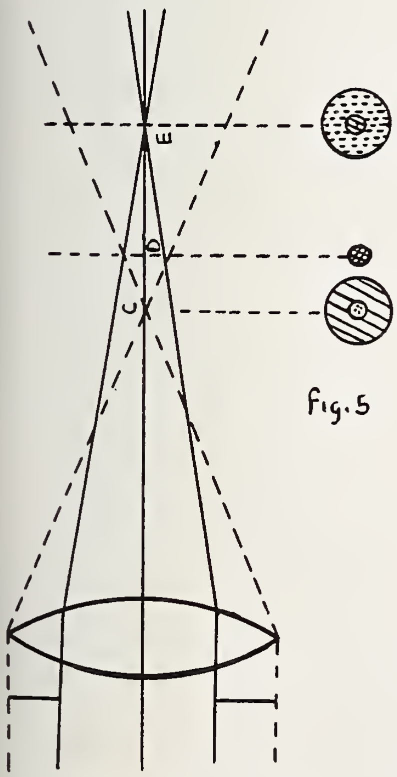

Fig. 5

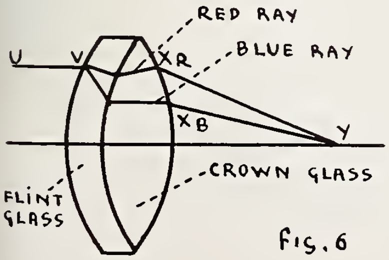

Fig. 6

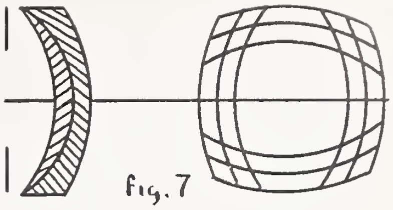

Fig. 7

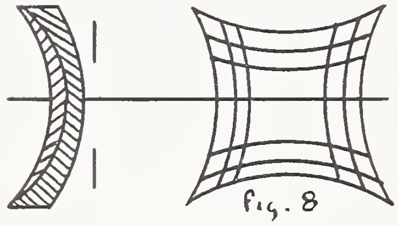

Fig. 8

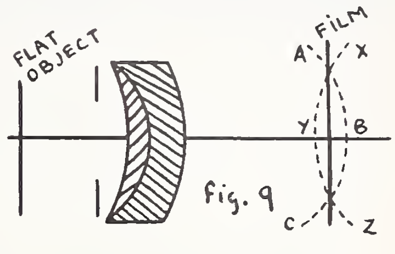

Fig. 9

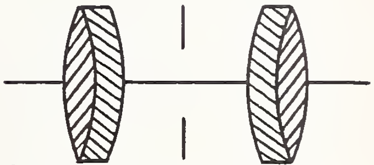

Fig. 10

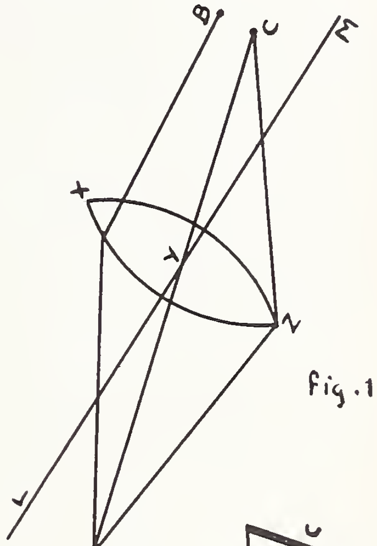

Fig. 11

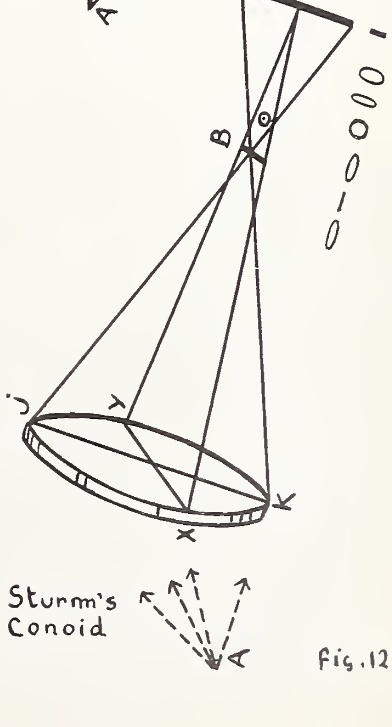

Fig. 12

Greater Oakland Motion Picture Club

"One Grand Lunch," comedy filmed by the Oakland Club

Amateur clubs

JAMES W. MOORE, ACL

Latest news of group activities and photoplays

Active in Los Angeles ■ Members of the Los Angeles Cinema Club, in California, have maintained a full program of activities during the late summer and early fall months, according to the reports of A. L. Gram, secretary. Avenir LeHeart addressed the group on the principles of composition, with particular reference to proper color combinations and contrasts. Four films were entered by a division of the club in an informal contest, won by Claude W. A. Cadarette, with an 8mm. scenario study in Kodachrome. Count Hendric Arthur von Schoenfeldt, reported as a European expert in color filming, spoke to the members on the practical aspects of good movie making, stressing the necessity for accurate focus and the sensible but selective use of filters. Six films, produced by Tracy Q. Hall, ACL, W. D. Longyear, ACL, and the Messrs. Kilgour, Levy, LaTouche and Memory, were entered and judged in a second informal contest, with first award going to Mr. Levy and second to Mr. Memory. 200 feet of film shot at the club's annual summer picnic were screened at a later meeting and a number of members' films were presented at each monthly meeting for review and discussion.

Rockville's fourth ■ *East Coast*, a three reel, 16mm. photoplay, is the fourth and latest production to come from the Rockville Cinema Club, of Rockville Centre, L. I., certainly the most active of current amateur producing groups in the United States. James Malone and Harry S. Smith, ACL, have collaborated in preparing an original story, which Mr. Smith has directed, photographed and edited. Leading rôles were undertaken with unusual sincerity and success by Virginia Jones, Peg Madigan, Tom Brennan and John Madigan, with Messrs. Smith and Malone contributing helpful bits in the cast of six. In this film, the Rockville group has tried its hand for the first time at a straight dramatic story of simple people against the genre but pictorially beautiful backgrounds of an East Coast fishing village. Sensitive camera handling, imaginative development of character and situation have served the producers admirably, however, in proving once again that it is treatment and not tricks which makes for sound and lasting dramatic interest.

Travel talk ■ *Planning a Travelog*, a discussion by one of the camera experts of the Magic Carpet series, and a screening of *Peggy's Cove*, the Edward A. Bollinger, ACL, Ten Best award winner from the League's Club Library, were features of the October meeting of the Metropolitan Motion Picture Club, in New York City. *Bryce Canyon*, a Kodachrome scenic by Frank E. Gunnell, ACL, and *Apple Sauce*, a scenario study by Charles J. Carbonaro, ACL, rounded out the scheduled part of the program. At the opening meeting in September, the club initiated a new system of members' film criticism, based on a detailed scoring sheet of the film's qualities. *Yellowstone Wonderland*, by Mr. Gunnell, and *Glacier-Waterton Lakes Park*, by Annette C. Decker, ACL, were the first reels judged on this basis. Walter Mills, ACL, has been appointed chairman of the committee in charge of the Metropolitan group's third annual Guest Night program, scheduled for the twelfth of this month. He is assisted by Thomas Kircher, ACL, and Dr. George Rohdenburg, ACL.

New name ■ In Australia, the late Sydney Movie Makers' Club, organized in November, 1932, recently has voted to change its name to Australian Amateur Cine Society, with a view to giving the club a wider significance and appeal in the amateur filming affairs of that country. At the same time, the society announces the acquisition of new meeting rooms and a number of plans for the enlargement of its activities. Gadget Night was the feature of a late program which brought forth interesting devices from James A. Sherlock, ACL, and the Messrs. Goodman, Menon, Sharp and Stubbs.

New Jersey contest ■ The best amateur movie made in the State of New Jersey during 1936 is the goal sought by the *Newark Sunday Call* and the Cinema Club of the Oranges in a contest sponsored jointly by these organizations, which will conclude at a screening in the Newark Y. M. C. A. on December 18. One grand prize and a number of sectional awards, all in motion picture equipment, have been promised contestants. The judges will include William T. Vanderlipp, ACL, president of the Orange club; William French Githens, president of Newsreels Theatres, and Arthur L. Gale, ACL, editor of MOVIE MAKERS. Mr. Vanderlipp has been assisted in carrying on this activity by Dr. Nelson W. Lockwood, ACL, H. C. Deuchler, ACL, Leo E. Leichter, R. M. Brooks and Arnold M. Hill, ACL.

Fundamentals ■ In New York City, the Movie Group of the Telephone Camera Club of Manhattan, ACL, opened its new season with a general discussion by Kenneth F. Space, ACL, on the fundamentals of good movie making. Under this heading, Mr. Space sought to present his views on the use of the camera, varying film emulsions and the photocell meter, rounding out his talk with a demonstration of a new system of interior lighting control which he has developed in his work as movie maker for the Religious Motion Picture Foundation. Following the formal program, members' films were

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Adapting reality

KENNETH F. SPACE, ACL

WHEN you have the opportunity to write your own script, keeping scenes and properties simple, the production of a good scenario film often may prove to be an easy matter. But let somebody whose interest is principally in drama, and whose knowledge of actual photography is not too complete, write a story, and the cameraman will find himself in a maze of difficulties.

For example, a scenarist's easily written "Anne and her fiancé are shown to a table in the dining room of the hotel" means three hours of worry, eight or ten flood lights, fifteen or twenty extras and six or eight hours of working time to make the scene properly. All of which is what makes substandard photoplay producing such interesting work.

A recent three reel production to which I was assigned had the above scene and many like it. One shot required that a nurse walk down several of the thickly crowded market streets in a tenement section. We chose a section on First Avenue below Fourteenth Street, in New York City, which was lined on both sides of the walk with store front and curb markets. We set up our cameras and in an instant were the center of a curious throng. When we finally explained our purpose, all agreed not to look right at the cameras, but several trials convinced us that the people would stare nevertheless and that the effect we wanted would be lost. The old stunt of shooting from a car was of no use as there was no room to park.

We finally worked out a satisfactory system. We located in our finders the area through which our player would walk, then we let her quietly take her place and, as she started down the street toward us, we would lock down the releases of our cameras which were on tripods and previously focused. While the scene was being filmed, we talked to each other, looked and pointed in any direction except where our cameras were trained and so diverted the attention of bystanders from the cameras themselves.

These shots were supplemented with others taken from the elevated railroad platforms and from second story windows of a house across the street. The use of a telephoto lens gave us closeups of the action in some of these scenes. In each case the young lady was instructed to wait until she had a slightly cleared area on the walk, and she wore a light colored coat to make her stand out against the background of the other passersby. She would watch us and, when conditions were favorable, a slight gesture of the hand would give her the signal to begin.

We also wanted to show a nurse attending a case of illness, but found that the rooms used for the set were so small that we could not get our cameras back far enough for medium and long shots. We compromised. The shots were limited to scenes of the nurse entering an old home and washing her hands in a poorly equipped and squalid kitchen, which could be done in closeup. Staged shots were added of a simulated tenement bedroom achieved by covering one side of a fairly long room with burlap and by obtaining an old iron bed, a chair and a small table. On the table we placed an old kerosene lamp wired to hold a flood bulb and, by limiting our illumination to this one source (which made the walls hardly visible) and by matching our action, the effect was quite natural. In the kitchen scenes, the nurse would turn at times and address remarks to somebody out of camera range. Then, in the next shot, the sick person in the bed would smile and answer, looking at a fixed spot out of camera range. The alternate shots of the nurse and the patient gave the illusion that the scenes were all made in one room.

Various successful devices to manage real life scenes

Helen G. Harmon

An accident scene, above, and street follow sequences, below, were cleverly made

Another problem was to film a youngster being run down by a speeding car and then being carried away in an ambulance. The script called for a street in the business district, so we picked a Sunday afternoon down in the City Hall section where automobile traffic would be light. We thought that few people would be around so we brought fifteen or twenty friends to act as bystanders and to pose for closeups.

We began our sequence with shots of the boy starting across the street against the traffic light. Then followed a shot of a car approaching at high speed directly toward the camera. This effect was gained by filming the car at half speed with a telephoto lens, so that the entire front of the car filled the frame when it actually was at some distance from the camera. Our next shot was made with the car standing still, the boy standing against the front of the bumper, a mattress having been placed on the ground behind him. The camera was stationed as nearly as possible in the driver's position. Then, at a signal, the boy threw his hands upward, contorted his face as if in pain and fell backward on the mattress out of camera range. We next swung the camera rapidly around in a circle to get a blurred swirl of car, buildings and sky. These three shots, cut carefully, made a graphic and convincing accident sequence.

Then came an angle shot, taken from the top of a step ladder down upon the huddled [Continued on page 500]

Helen G. Harmon

Under the floods

PAUL D. HUGON

GIVEN three or four flood lights, superspeed film and a moderately rapid lens, such as the popular *f*/3.5, the home cinematographer can face dark winter days cheerfully. No fear of having to put his beloved equipment in dead storage, when he has a chance to secure permanent records of his family and friends at little cost and with an infinite variety of experimentation—if only his subjects do not run out of patience.

Picture getting is like fishing—very little of the fun is in the mere size of the catch; most of it is in the opportunity that the art affords to display one's mastery of intricate instruments under trying circumstances. Not every composition is worth recording, still less every light effect; but every combination produced fortuitously or intentionally by varying the *relative* position and dominance of the lights is an eye opener and an education in art values. When the camera subjects are people, instead of things, it is a further training in the recognition of individual differences—shades of complexion, skin and hair texture, bone structure, muscular tensions, posture and the effect of thought upon temporary expression.

To save electric current when one does not have the floods on a high low switch, rehearsals may be conducted by the light of three or four sixty watt lamps, placed exactly as the floods would be. It is placing the lights at various *heights*, and in various relative *concentrations* (on one side or the other), that determines artistic values. The high *intensity* of the light is merely a technical requirement of adequate exposure at high shutter speed. Therefore, ordinary lights are practically as good for rehearsals as full powered lamps. With movies, the artistic value is greatly complicated by the motion of the subject during the scene; that is why rehearsals of the entire action are indispensable. The position in which the greatest part of the footage is to be shot is the one that should be favored in placing the lights (high or low, right or left), but all other positions taken by actors during the same shot, including entrances and exits, must be considered. One must avoid an ugly unbalance of light, even of brief duration. (The lights, of course, should never be changed during a scene, except for special effects. The spectators should never be aware that lights are used at all. The illusion of reality must be maintained at all costs.)

Unbalanced light is effective when restraint is used

Forbath & Rejane from R. I. Nesmith and Associates

To save the subject's temper, when long series of experiments are contemplated, a "stand in," as they are called in the studios, may be used—another person as nearly as possible a twin of the actual subject. Very few lightings which suit one person will completely suit another. Differences in complexion are even more serious than differences in height or build. Several hours should be devoted, note book in hand, to lighting studies, viewing everything from a fixed camera angle and varying the position of subject and lights. This is the only way to obtain measurable, and therefore repeatable, results. The cameraman who jumps around until he happens to catch a good angle may secure one good picture, but he will have learned nothing.

The first of these variable factors is the *balance* of the light as it falls upon the subject (a term which applies equally to a person or a thing). Shall it be absolutely flat lighting that hits the subject full on; or balanced lighting, preponderantly though not conspicuously from one side; or unbalanced lighting which, for effect, is conspicuously different from real life?

The answer depends, of course, on the subject and the purpose. *Flat lighting* increases contrast with surroundings; it widens and flattens and it destroys texture. It is suitable for children and old people, for a narrow face which needs to appear wider, for a hooked nose, for a wrinkled brow—but unsuitable for opposite conditions. *Balanced lighting*, safest when in doubt, may be reduced to a simple two to one formula; two units of lighting value on one side, one on the other. Since the light varies according to the square of the distance, there are two ways in which balanced lighting may be obtained: either by having all lights at the same distance from the subject but using two on one side and one on the other; or by having the same number of lights on each side, but placing those on one side proportionately farther away. For example, to obtain balanced lighting, one could place two lights six feet away (thirty six units of distance) and, on the other side, two lights four feet away (sixteen units of distance, which would give approximately one half the illumination of the other group). Note, however, that the two groups should not habitually be placed at the same height; one may be used to correct the over heavy shadows cast by the other. Reflectors have the same effect.

Unbalanced lighting is used when there is something to conceal, or something to favor, or when a mysterious, unnatural effect is desired. A fat arm may have to be kept in shadow (without, of course, being made too noticeably dark). One whole side of the face may be kept in semi darkness to give an effect of mystery. The dark side of the face

[Continued on page 499]

Ways and means to use indoor lights to best advantage

Making maps move

MARK GOLDBERGER, ACL

The map is traced and very little art work is required

I HAVE read dozens of articles on animation and have come to the same conclusion each time. It was all very interesting, but animated cartoons were not for me. In the first place, I am not an artist nor a cartoonist and, in the second place, even if I were, the idea of drawing a few hundred sketches in order to get ten or fifteen feet of animation is overwhelming, to say the least. Finally, although most of these articles were written by experts, after reading them, I still had a hazy idea of how to follow the theatrical animation procedure.

Then, too, most movie makers do not need such elaborate animation. What is desired is a simple method of animating maps for travel and personal reels and diagrams and plans for industrial and educational pictures. My particular need was for animated maps for travel films and, to meet it, I evolved a type of animation that can be handled by anybody. It requires no artistic ability, and only a few drawings or tracings of drawings are needed.

The animation in my map was to represent a trip from New York to Chicago, and the effect on the screen was as follows: first appears a plain outline map of the states between and near the two points. This runs for a few seconds, then a dot appears at the location of New York City and the words N-E-W Y-O-R-K spell themselves out. After another pause, a white dotted line commences at New York City and travels to the next city on the route, where another dot appears and the name of the city appears on the screen, letter by letter, as in the case of New York. The whole effect remains on the screen, without further animation, for five seconds and then fades out. The scene of the first stop on the trip then fades in. After the sequence of the first stop, the map appears again on the screen, and the dotted line is extended to Chicago, where the name of that city spells itself out.

How this effect can be produced without elaborate animation may seem, at first glance, something of a mystery. The answer is very simple—reverse motion. If your camera has no reverse takeup, then one can simply invert the camera or the map itself.

One starts with a complete lettered job, just as the map will appear in the final form. The animation is produced by removing the lettering, letter by letter, and the line, segment by segment. The whole thing is done backward because it is filmed in reverse. The lettering to be removed is done on celluloid so that it is easy to scrape off. In preparing for this effect, the first step is to trace the outline of the map on a piece of gray cardboard. (Mist gray matte board is suggested.) It is not advisable to use carbon paper in tracing the map because it may soil the board; you can, instead, force an impression on the cardboard by tracing the outline over it and pressing heavily with a hard pencil. In tracing the map, follow only the essential outlines, since too much detail is confusing. An inexpensive atlas will supply you with a map to serve as a guide for the tracing.

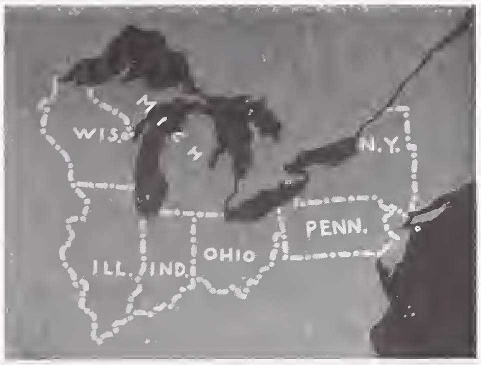
Next, paint in the impression with show card colors, using a light gray (light enough to contrast with the cardboard) for the outlines and names of the states. Use black to designate large bodies of water. All the drawing on this cardboard will be permanent and will remain on the screen from first to last.

When the cardboard has been prepared, place over it a celluloid of equal size. Sheets of acetate celluloid (ten by twelve inches in size) may be obtained easily from an art supply or stationery store. The celluloid must be clamped or tacked firmly over the cardboard. This may be done in the theatrical manner by punching holes in the cardboard and celluloid and registering them over corresponding pegs, or it may be done simply by tacking the celluloid in place. Two strong clamps made to hold correspondence would serve, as shown in the illustration on this page.

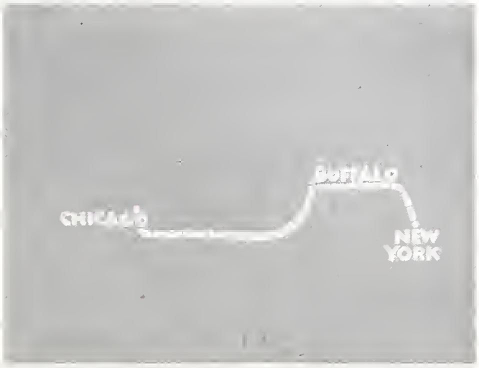
Very simple way to add animation at little expense

With the celluloid in place, paint in, with pure white, the portions of the drawing that are to be animated—in this case, the names of the cities and the dotted line, which latter may be produced most easily by painting a continuous line and, after the show card color is dried, by scraping out segments of it. A glass cover is needed to keep celluloid and cardboard flat during exposure. If you plan to do much animating, this requirement can be met conveniently by arranging the glass in a wooden frame which is attached to the map stand by hinges. This allows the glass to be swung back and forth freely without disturbing the set-

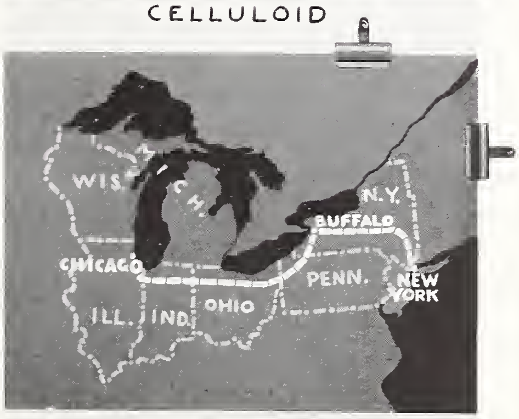
[Continued on page 489]



MAP ON CARDBOARD



CELLULOID



COMBINED, CELLULOID OVER MAP

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Polarizing filter for 16mm. ■ When light is reflected obliquely from certain kinds of polished or smooth surfaces, it has been found that, at a certain angle, such light becomes polarized. This means, simply, that the light is vibrating in one direction only instead of in all directions, as is normally the case. Reflected light that is polarized in this way may be cut down or entirely eliminated by the use of the polarizing filters which are now on the market. All that it is necessary to do is to observe the scene visually through the filter, revolving it slowly until a point is reached at which the maximum effect is obtained. The filter, in exactly the same position, is then placed over the camera lens. The use of the polarizing filter will produce startling effects with reflected light from the sky at certain times of the day. This is because the light from the sun is reflected obliquely by minute drops of moisture in the air and, at these times, the light becomes polarized. I have found, by observation, that this phenomenon seems most pronounced between the hours of ten and four, on a clear day. The outstanding advantage of the polarizing filter for substandard workers, under these conditions, is that it will darken the sky and produce marvelously etched cloud effects even with the slow, color blind films. A factor of 1½ to 2x was allowed in these experiments and gave excellent results very similar to those secured with panchromatic and a heavy filter. Even with panchromatic film, the polarizing filter is advantageous because it obtains such effects but does not alter the color values of the subject, as would a deep yellow or red filter. An excellent example of this use is found in making a portrait closeup of a subject when it is desired to darken the sky in the background. For this reason, too, the polarizing filter may be employed to excellent advantage with color film, where color filters would be out of the question. At sea, where the brilliant light is reflected obliquely from sky and water, the polarizing filter is highly effective, with orthochromatic or even with positive emulsions.—*R. C. Holslag, ACL.*

Figure animation is not difficult if action is limited

Irving Browning

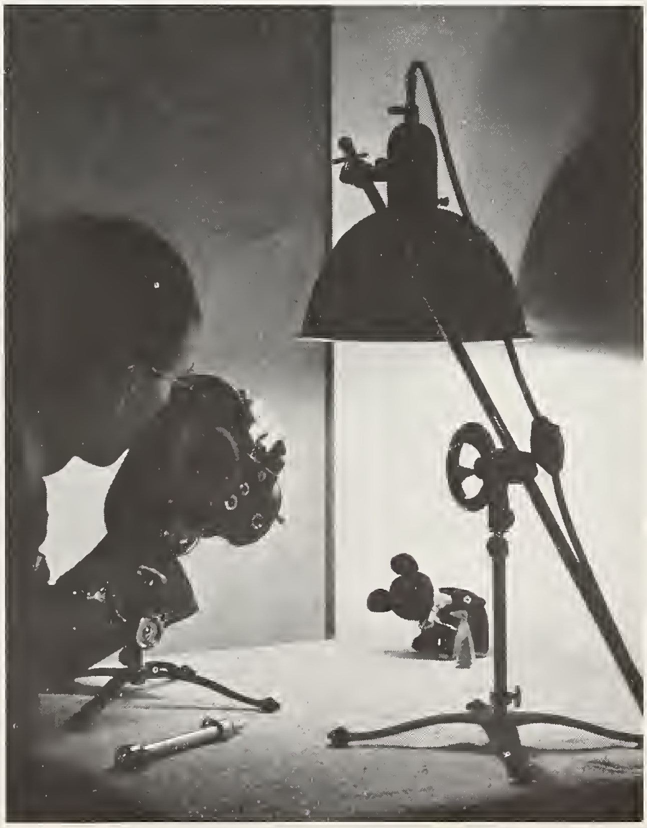


Figure animation ■ Imparting lifelike motion to inanimate objects is sometimes a tedious process, but the results are well worth the trouble and time it takes. Whether jointed figures or solid ones are used, the principles back of the work are the same. First of all, it is a great help if a camera with a single frame attachment is available, but this is not indispensable because single frames can be exposed with the average camera by striking the release button sharply. The next important point is to have the focus accurate. When working at close range, the depth of field is necessarily very shallow, and it helps therefore to have plenty of illumination so that a fairly small stop can be used, with the resultant increase in depth. In order to promote flexibility, it is extremely helpful to have the camera on a low tripod or stand, such as that shown in the illustration. Animation itself consists of moving the subject by progressive stages through the desired movements and exposing one or two frames at each stage. The amount of change in the position of the subject for each exposure is dependent on the speed desired; the greater number of frames used to complete a given action, the slower and smoother the action will be. A little practice will show just about how much movement should be allowed for each frame. Jointed figures are easiest to handle, but more realistic effects can be had with subjects made of modeling clay. The latter method requires considerable patience, but the results are often amazing.

Fast Eight ■ The new, faster Kodachrome emulsion, recently announced in MOVIE MAKERS, is now available for 8mm. users. It can be recognized by the emulsion number, which is higher than 9120, or by the sticker on the box calling attention to the increased speed. The data given in the article, *Kodachrome is faster*, in the September number of MOVIE MAKERS, apply to 8mm. and 16mm. film alike. Likewise, the exposure chart in the League's new booklet, *Color Filming*, applies to both film widths.

Mirror focusing ■ The movie maker who tries trick shots involving the use of a mirror must remember that, in order to set his focus correctly, he must measure the distance from the camera to the mirror and add to it the distance from the subject to the mirror. A range finder may be used with perfect accuracy, simply by focusing on the image seen in the mirror. Incidentally, it is always best to use a silvered surface or a chrome plated metal mirror for this type of work in order to prevent the slight reflection from the thickness of the glass.—*Carl L. Oswald.*

A minute movie ■ A bench, a park and two characters are all you need for this amusing little short. One character is sitting alone on the bench, leafing through a book of ghost stories. A stranger sits down on the bench, as the reader grows more disgusted with each short passage he reads between pauses. (It is apparent that the two are not acquainted because the second has courteously asked permission to share the bench.) The reader, after having acknowledged the request, and after trying another time or two to find an interesting passage, throws the book violently away and turns vehemently to the stranger saying, "Ghost stories are trash! I don't believe

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Catch booms of a freighter against cloud flecked sky

F. S. Lincoln

Down by the docks

KARL A. BARLEBEN

THERE is no cinematic subject quite like the average water front. Here are life, animation, color, rhythm and atmosphere. A symphony of sight, sound and odor meets the visitor in no uncertain terms—terms that linger in the memory. The filmer can capture most of the effect; about the only missing element will be that of odor. The movie camera can record the action, the color and the sound, which surely are ample to convey a realistic impression to the screen.

A picturesque pier, a fleet of drab fishing boats loading, busy tugs scurrying back and forth, a sedate cutter gliding past, a transatlantic floating palace jockeying into its wharf with the aid of a fleet of puffing tugs, a flock of seagulls wheeling and squealing monotonously overhead, the scream and whine of steam winches, as huge loads are dropped into the bowels of dusty tramp ships, a few ragged urchins fishing unconcernedly off the edge of a dock, the gentle wash of tiny waves as they lap against the piling of piers—these and many other subjects are all food for the hungry camera. Better still are the results if natural color film is loaded into it. Sound can be recorded on the film at the time or can be added latter with records and double turntables.

Water fronts of some sort are found in almost any city situated on the ocean, a lake or a river. The amazing thing is that so few filmers have thought this subject worthy of film. But this very fact makes it all the more attractive, because it presents something out of the usual run of amateur pictures. Imagine, if you will, a full reel of water front scenes. Carefully edited and titled (or sounded), such a film can be a deep satisfaction to the maker, to say nothing of offering a thrill to the fortunate audience that sees it.

What water fronts offer to amateurs and how to get it

Angles are in abundance. There is no need here for trite, ordinary photography. Low shots, high shots, all are there for the taking. The life and activity all around give the animation so vital to the success of any motion picture. It is possible to aim the camera in almost any direction and to get something worth recording. That's what the water front offers! If you tire of the unending panorama of ships, water, piers and the like, you can quickly change to so called candid filming—longshoremen at work or idle, hobos at their jungle fires, hidden from open view by unused warehouses and rotting fences, and tenement children scampering about. Each has his own story and picturesqueness, and lucky is the amateur who manages to record such characters without their knowledge. This sort of thing has its dangerous aspects, for water front inhabitants are not ordinarily willing to be photographed. Catching them calls for strategy and nimbleness on the part of the cameraman. With the small amateur equipment, as compared to the bulky newsreel outfits, one can more often roam about without attracting much attention.

Max Miller's *I Cover the Water Front* and *Man on the Barge* offer excellent material from which to draw in planning water front scenes. Many ideas will come to mind from reading Miller's excellent references to water front life and customs. It follows that random shooting is to be avoided, for it too often leads only to wasted film. Instead, a fairly accurate plan should be made, either mentally or on paper, *before* starting on a water front expedition. A main idea or theme should be surrounded by lesser details. The whole, when assembled in editing, should make a complete action picture story. Often such a planned film cannot be photographed in one day, but calls for several trips.

A study of conditions should be made, for it is always well to know beforehand in just which direction the light falls and what ships are coming in and going out. On some days, the water front may present an almost "Sunday calm," while on others it may be a veritable beehive of activity. Naturally, the basic idea dictates whether the deserted or the busy time will be filmed.

Technically, water front photography requires some skill, if a really successful film is to result. One of the prime requisites is correct exposure, which is most simply determined by the use of a reliable, modern exposure meter. This problem settled—and it is a real problem because of the deceptive lighting conditions—the next point to keep in mind is color and cloud rendition. Almost always a clear, sunny day will be chosen, and wherever a clean, blue sky is to be seen, fleecy white clouds are usually found. Many scenes will, of necessity, include sky areas, and it would be very unfortunate to "rub out" the clouds by failing to use

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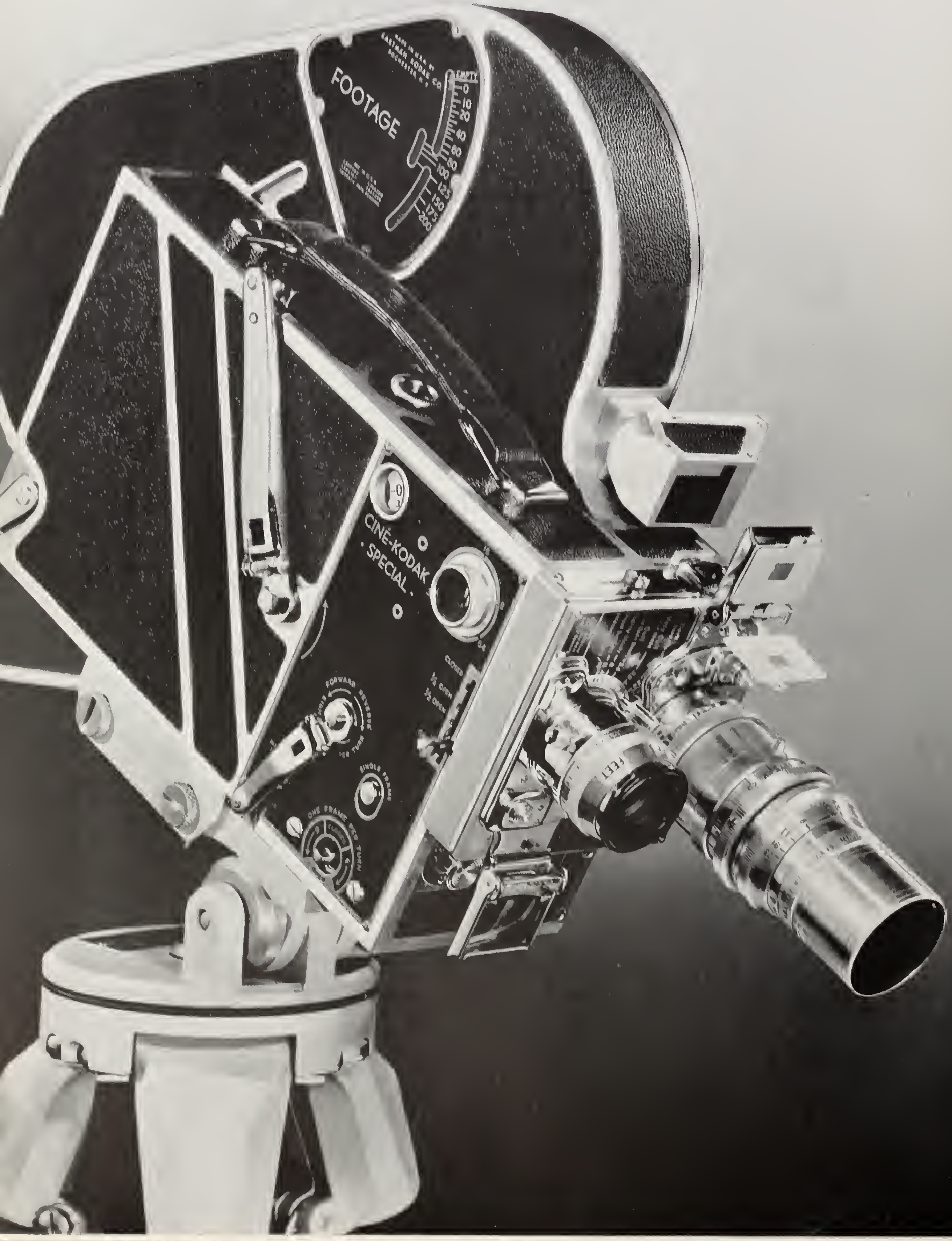
World's Finest 16



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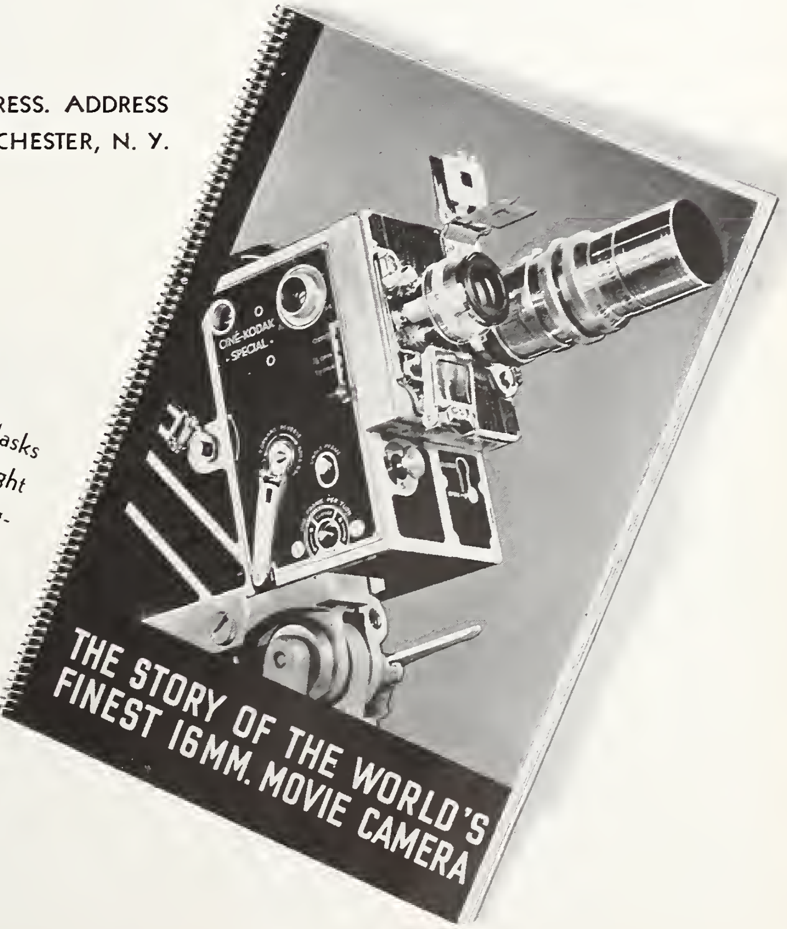

THE STORY OF THE WORLD'S FINEST 16MM. MOVIE CAMERA

News of the industry

RUSSELL C. HOLSLAG, ACL

Wallace Heaton moves ■ Cine travelers will be particularly interested to learn that new headquarters for Wallace Heaton Ltd., of London, have been opened in improved and larger premises at 127 New Bond Street, London, W-1. According to H. S. Newcombe, A.R.P.S., sales manager, a special feature will be the improved facilities devoted to amateur cine material, which include a well equipped projection room for showing silent and sound films. Overseas visitors and all those interested are invited to visit the new quarters of this firm, where they will find available many kinds of services, including emergency camera and projector hire.

Bass allots RCA abroad ■ The distribution of the RCA 16mm. sound camera for Holland, Belgium and France has been bestowed by Charles Bass, of Chicago, upon P. S. Van Lier, of the American-European Film Organization of Amsterdam, Holland.

Kodak Stores ■ An ingenious plan to solve the problem of business executives who desire to provide entertainment for their visitors or for sales conferences has been evolved by the Eastman Kodak Stores, Inc., of New York City. The plan works out as follows: the guests are taken to dinner, after which they assemble in the showroom where, after the business conference, they are provided with a light entertainment in the form of 16mm. talking movies, featuring musical comedy productions. The Kodak Stores will supply the films, machine and operator. A successful preview of a sample program was held recently in the branch at 356 Madison Avenue with pronounced success. This firm also has issued a new and interesting booklet of rental movies in 16mm. silent film, which may be had on application.

B & H sound catalog ■ A new catalog of 16mm. sound on film subjects, which runs to fifty six pages, has just been issued by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. The variety and interest of the titles offered well attest the great increase in popularity which has come to this medium of entertainment and education. Most of the releases listed are for rental only, through the Filmosound Library Chicago headquarters, or any of its branches. The list includes adventure, travel, nature, sports, historical and musical subjects. The book is priced at 15c a copy and may be obtained from any Filmosound Library branch, or at headquarters in Chicago. ■ This firm has also informed us that their new *Kodachrome Bulletin* will be distributed gratis to any inquirer, who may procure it by addressing the Technical Division of the company.

Bell & Howell

The King of Siam continues to be an active movie maker

Wallace Heaton of London has new and larger headquarters

Film care ■ The Peerless Film Processing Company, originators of the well known Vaporate treatment for motion picture film, report that their process has achieved wide popularity among the users of Kodachrome. The susceptibility of color film to damage by finger marks and oil spots has been overcome by their treatment, the company inform. Finger marks readily can be wiped off from treated film, and it is rendered impervious to moisture. In addition to preparing the emulsion against atmospheric changes and water damage, the process hardens it and prolongs the life considerably. Users of continuous projectors have found Vaporate extremely valuable when running Kodachrome in order to prevent wear and to keep the film pliable enough so that damage is less likely to occur. The leading film libraries, theatrical distributors and industrial filming organizations are enthusiastic users of the process, Peerless reports.

Flex-A-Pod ■ A most useful and versatile accessory for movie and still cameras, as well as with lighting units, is marketed by Photographic Specialties, Inc., 129 West 22nd Street, New York. This is the Flex-A-Pod, a well made miniature table stand, with four cast, rubber tipped legs. This device supports an upright tube with an adjustable extension rod to hold the camera. With this, one may also make use of a tilting device, by means of which the camera may be tipped at any angle and locked in place. The equipment also will serve as a support for the Photo-Flood-Spot and Flex-A-Lite lighting units offered by this company.

Movie course ■ Classes of the course in personal movie making being given at New York University by Charles J. Carbonaro, ACL, are held each Monday evening from eight to nine forty five o'clock rather than on Thursday evenings, as originally announced. The course, which began September 21, is given at 20 Washington Square North, New York City. Any filmer can enroll.

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Answers the query "What's new?" for amateur and dealer

Practical films

■ Dr. James E. Bliss, ACL, recently has filmed a one reel picture of buildings, faculty and students of Adelbert College, one of the thirteen colleges comprising Western Reserve University at Cleveland, Ohio. After a brief historical introduction and scenes of the oldest buildings, the picture presents extra curricular student activities, such as dramatics and athletics. The film was made under the direction of Dean William D. Trautman and Elliot J. Jensen. It was first presented this fall as a part of Freshman Week activities, and it met an enthusiastic reception. So successful is this picture that Western Reserve University College for Women is undertaking a similar film, and the University as a whole is contemplating a general motion picture program. Dr. Bliss previously made a 350 ft., 16mm. picture for the University, entitled *Open House—1936.*

■ Robert F. Purinton, of San Diego, Calif., has made four 16mm. films during 1936 which are being used in the San Diego city schools and which have been viewed and studied at many other educational institutions. *Home Builders at Work* presents the work of various building trades in constructing a house and ends with a sequence, in color, of the completed home. *Studies About Communication* shows a class of children learning the aspects of communication media: telegraph, radio, printing presses, mail, flag signals and ancient symbols. *Children's Airport Excursion* pictures an airport and all its facilities, as shown to visiting school children. *Happy Hen and Her Chicks* is an actual motion picture record of eggs hatching, done mostly in closeups, which was made possible by an ingenious arrangement built by Mr. Purinton.

■ How students can work their way through college is the theme of a 600 ft., 16mm. picture recently made for Northland College in Ashland, Wisc., by Jack W. Hageny, ACL. The picture shows the operation of the college printing and crafts shops, where students find employment opportunities. Class room and laboratory work in chemistry, biology and physics are also featured, and sports and college activities are shown. The state organization of the D. A. R. has been screening the picture throughout Wisconsin and the president of the college has used it in conjunction with lecture tours.

■ *Color Studies of the Dallas Fair*, a 400 ft., 16mm. Kodachrome of the architectural highlights of the Southwest exposition, filmed by League President Stephen F. Voorhees, ACL, has been of considerable value as study material to architects of the Board of Design of the New York World's Fair 1939, a board on which Mr. Voorhees serves as chairman. In this film, the League's chief executive has used with real effectiveness a number of the characteristic qualities both of the general and the specific medium in which he was working. Color values are true and lifelike, a necessity in any clinical examination of this kind. Camera treatment has embraced the long shot for layout, the medium shot for analysis of individual architectural features and the closeup for study of details. Panoramic or tilting views have been employed on occasion to indicate the connection between one building and another, the feeling of lift in a tower or pylon and other structural effects.

The non theatrical movie as used for various purposes

A. G. W. Sparrow

Ranchers have made publicity films as well as industries

■ When, recently, the old building housing a section of New York City's famous Fulton Fish Market collapsed from age and slipped into the East River, a long distance telephone call from Virginia the next morning soon had Alexander de Canedo, art editor of MOVIE MAKERS, on the job filming an 8mm. record of the wreckage. He made the film at the request of J. E. Treakle, whose firm is one of the oldest and largest in the Market.

■ The superb natural beauties of the location of Camp Pinnacle, a boys' summer camp at Lyme, N. H., and the happy freedom of its activities are well presented in a two reel, 16mm. Kodachrome film recently completed by Robert F. Gowen, ACL, of Ossining, N. Y. The present all color picture will replace an earlier monochrome two reeler produced by Mr. Gowen for the same organization in 1934. Like its predecessor, it will be used by Alvin D. Thayer, camp director, and by his lieutenants in a rather personalized selling of the camp to new boys and their parents. To that end, titles largely have been omitted and an informal lecture synopsis has been devised to accompany the screenings.

■ If, like the Tamper-Proof Seal Corp., of New York City, you had a machine to sell which weighed well over two tons, you probably would also find that your salesmen could get around a lot more freely if you equipped them with a good sales film and a projector, rather than with one of the machines. Just this is what that company has done in presenting to dairies and large scale farmers the merits of their automatic bottle capping machine, which caps up to 120 quarts of milk each minute without spilling a single drop. Robert O. Smith, ACL, of Long Island City, N. Y., was the producer of the one reel, 16mm. record and sales medium, which was exposed silently at twenty four frames a second with a view to post recording a lecture on the film.

■ In San Francisco, Calif., Dudley Porter, ACL, recently has completed a 1000 ft., 16mm. publicity film for the F. E. Booth Company, Inc., packers of Booth's sardines and other sardine products. Starting at picturesque Fisherman's Wharf, the film carries one out with the fleet of purse seine boats to fishing grounds off the coast, where, at the dark of the moon, the sardines are netted. Even this activity has been successfully and strikingly pictured by Mr. Porter in a sequence shot entirely with flares. Laboratory and factory sequences conclude a film which will be used primarily by the company's salesmen but which is offered, as well, on free loan screening to groups.

■ This fall, T. W. Willard, ACL.

[Continued on page 501]

Just published . . .

How to Write a Movie

The latest text on movie planning, continuity, script and film story writing for amateur movie makers and industrial filmers.

Written by

Arthur L. Gale, ACL

Editor of Movie Makers

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An American films in Japan

FRED C. ELLS, ACL

An incipient battlefield for the past four days, this afternoon the center of Tokyo was sunny and quiet. Mrs. Ells and I strolled about among thousands of curious Japanese to view the scene of the most sensational army revolt in recent history. Laborers were prosaically and leisurely removing barbed wire and shallow entrenchments. A few armed guards still stood at usually unprotected intersections. The Imperial Hotel lobby buzzed with foreign newspapermen. I saw Japanese amateurs taking snapshots, but I, an ardent photographer, fully aware of the historical importance of the occasion, didn't take either movies or "stills."

In my twenty two years foreign service with a well known American oil company, I have been through one blockade of four months and in a war zone for eighteen months, and I have seen the overturn of several Balkan governments. In that time I have taken some few thousands of pictures. But my camera activities and foreign political disturbances never coincide. You see, I am primarily in the oil business and intend to remain in it, if possible, for some years to come. Indiscreet photography might easily be a very short cut to serious trouble. So I labor monotonously as an accountant five and a half days a week, devoting Saturday and Sunday to my camera and my nature subjects, weather and politics permitting.

Movie making in Japan involves certain difficulties for the unwary foreigner. There are military areas near tourist routes that are decidedly *verboten*, and these areas are not well defined. Off the tourist routes, a zealous policeman may start a spy story, with consequent distressing publicity for the bewildered visitor.

My only serious difficulty with the Japanese authorities was not for taking movies but for showing them illegally. The film had passed the necessary Japanese censorship, and I thought that was all that was necessary. Not so. For any performance outside of a private house or before a club on its own premises, it is necessary to have a special police permit. Ignorance of this ruling caused me several days of anxiety, but the police authorities were polite and reasonable, and finally the matter was amicably settled. Incidentally, no films can now be taken out of Japan legally unless they have passed a special export censorship. There are apparently no distinctions made between commercial 35mm. and 16mm. film in any of the motion picture regulations.

Fred C. Ells, ACL, who made "In the Beginning" in Japan

Aside from the technicalities of the Japanese law, as a contributor to film contests in other countries and Movie Makers Ten Best, I have learned some other unsuspected quirks. For instance, 16mm. film cannot be shipped by parcel post on the Canadian Pacific liners from Japan to America. Any other steamship line will take such parcels. Victor phonograph records, made in Japan and used for film accompaniment, cannot be shipped to America freely. It's a violation of something or other, and special documents are required at the receiving end to permit entry. The U. S. Customs also views with alarm any American film purchased and processed abroad, although the regulations permit free entry if the film is of American manufacture and will not be used commercially. The British Customs apparently allowed my winning film free entry in 1934, but charged one pound, seventeen shillings and five pence duty for a film that was a cold, clammy "flop" in 1935. And so it goes.

After battling with a tricky camera and refractory birds, insects, squirrels and reptiles, then going through the grief and painful decisions of cutting and scrapping expensive and beautiful shots, there still remain the legal entanglements, shipping vagaries and customs pitfalls of this nationalistic minded world before a film can be placed before the coldly critical eyes of London, New York or Hollywood, for an outside chance at international awards or honors. Why go to all the expense and trouble of a competition entry? Why not make a film, show it locally to a few friends and let it go at that?

I don't know, really. The reward of a winning film is usually intangible, or perhaps a portion of its cost. But I suppose a psychologist would say that the instinct to produce an amateur motion picture is basically a form of exhibitionism. It is the desire to "show off," to demonstrate one's ability to a skeptical or long suffering wife, or some such impulse. In my own case, making a motion picture is a form of escape from the unchanging routine of the office, to a world where I can dream and create, make all my own decisions, work hard or procrastinate at my own sweet will.

But I have always had some reward for a good film. For 1935, my fullest recompense was the following letter:

Hartford, Connecticut
January 6th. 1936.

Dear Mr. Ells:

You may be interested to know that your two reels of 16mm. film, *In the Beginning*, were screened at the Hartford Cinema Club and that Mrs. Maxim and I thought so highly of them that we obtained them for a private screening in our family on Christmas Day. We have now seen this film twice, and to be willing to sit through a film twice is about the best praise I know of.

Let me congratulate you on a very fine piece of work. I hope I may have the pleasure of seeing your next film. With best personal regards, I am

Sincerely,
Hiram Percy Maxim.

My acknowledgment and thanks, mailed January 28th, were too late to reach him in this life, but I hope somehow he realizes my appreciation of our late President's sincere and kindly message. I shall try to make my next international entry a film that he would have enjoyed seeing twice.

An optical excursion

[Continued from page 475]

while the other one would be out of focus.

7. *Flare:* Excessive internal reflections from the various surfaces of glasses used in a lens.

8. *Unequal illumination:* The concentration of illumination at the center of the image.

The two most important lens defects, as discussed above, are referred to as spherical and chromatic aberrations. Do not be afraid of this optical terminology: you already have seen that these words are merely convenient terms for certain specific defects which have to be corrected.

We will not attempt to discuss the correction of spherical aberration except to say that it is taken care of mainly by balancing the curvatures, the refractive indices, and spacing the various elements.

Reference to Fig. 5 shows why stopping the diaphragm down increases the sharpness of a lens which is not corrected for spherical aberration. The outer ray will focus, for example, at C and the inner ray will focus, for example, at E. Thus, with the lens wide open, the image of a point will, at C, consist of two components—a sharp image produced by the marginal rays (shown by dotted shading) and an out of focus image produced by the inner rays (shown by the larger circle shaded in heavy lines). The same condition would apply at the point E, although there the inner rays entering the lens would focus sharply and the outer ones would be out of focus. The position of best focus is at the point D, which represents the best possible compromise. When one adds a color error to the above, it can be seen why a cine lens has to be so well corrected.

A careful study of Figs. 1, 2 and 6 will show how the color error—chromatic aberration—is corrected. Designers take advantage of the fact that different glasses "disperse" the different wave lengths (colors) of light by varying amounts. When prisms, or lenses, of different dispersive characteristics are opposed to each other, the path of the ray as a whole is changed from the direction UV to XY (Fig. 6), but the glasses balance the color dispersion so that both colors focus at the same point Y.

Flint glass has the property of dispersing the light a great deal but of bending it only slightly, whereas crown glass does the opposite. Therefore, the "power" of the crown glass has to be greater than that of the flint glass to cancel the dispersion and to overcome the negative deviation of the weak flint glass. Thus it will be seen that, by using a negative lens of flint glass in conjunction with a positive lens of crown glass, the desired result is accomplished.

We now come to the next two troublesome aberrations, distortion and curvature of field, which usually are considered by the designer more or less together. While not so serious as the first two aberrations, they are highly objectionable. Designers must compensate for them in the large aperture lenses, or only the center of the picture would be sharp and recognizable; the lens would cast the image of a flat object as a section of a sphere. Viewed from the front, the image of a window, for instance, would be as represented in Fig. 7 or Fig. 8; viewed from the side, the image would be curved away from the plane of the film, as shown in Fig. 9.

A lens for photographic purposes requires the use of a diaphragm for controlling the intensity of the light reaching the film. A diaphragm introduces distortion, and it will be seen in studying the diagrams 7 and 8 that the distortion varies as the diaphragm is placed in front of or behind a single lens.

The diaphragm also affects the curvature of field. Fig. 9 shows an arrangement used on small hand cameras of the box type. The primary curvature (ABC), which is due to the diaphragm position, is offset by the opposing curvature XYZ, which is due to the shape of the achromatic meniscus lens. This is a fairly ef-

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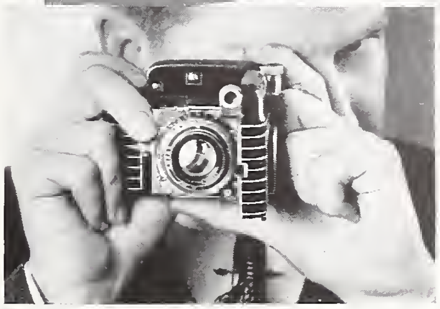

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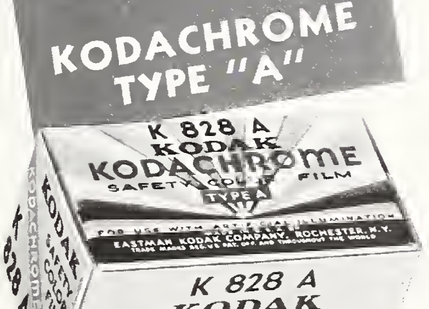

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fective compromise for the curvature of field but not so good for distortion. The construction is limited to apertures not larger than $f/16$ or $f/11$.

Fig. 10 shows a solution which is effective in apertures up to about $f/8$. By placing similar achromatic lenses on either side of the diaphragm, the two sets of distortion cancel each other quite well, although it is found impossible to correct for curvature of field and astigmatism at the same time. The speed of this type of lens, called the "rapid rectilinear" lens, was limited to $f/8$ because of the deep curvature necessary in the meniscus glass.

The next two aberrations, coma and astigmatism, are rather harder to explain in an elementary manner because of their relative complexity. However, a little study of Figs. 11 and 12 should give a fairly good idea of what they are.

In any lens of large or even moderately large aperture, rays enter the lens from points not parallel to the optical axis (represented by LM, Fig. 11). Thus it is apparent that the rays AX meets the first glass element at a totally different angle to the rays AZ, for instance. We might say that A is approximately equidistant from Y and Z, so that the rays AY and AZ will focus at C (ignoring other errors for sake of argument). The ray AX, however, will focus at B. It is evident that all the rays between AY and AZ will also focus at C, whereas the rays from AY to AX will focus progressively nearer the point B.

The concentration of rays focusing at a point (C) and the progressive scattering of rays (XB) from that point give an effect exactly like that of a comet with a tail. The name coma is taken from that and is strikingly descriptive of the effect.

Astigmatism is an especially difficult thing to illustrate or describe, as it involves the necessity of visualizing in three dimensions.

Fig. 12 shows a three quarter view of a lens element—for the sake of simplicity, the rays from the point A are omitted—but it can be understood that the rays from a point A below the axis go to the points X, Y, J and K. Because the angles at which these four rays enter the glass are different (a matter similar to that explained above in reference to coma), the rays JK will focus at B and the rays XY at C. Thus the image of a point A will be a horizontal oval, a horizontal line, etc., as shown below in Fig. 12 with the circular image at O being the best compromise. The image at O is obviously larger than the original point A and indicates why astigmatism, while so complex, completely limits the definition of objects not on the axis of the lens. Imagine how serious this is in designing a wide angle lens—this incidentally gives an idea why there is a limit to the angle of view of a lens.

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(Editor's note: This is the first of a series of two articles by Mr. Mitchell on cine lenses. The second will appear in the December number of Movie Makers.)

Making maps move

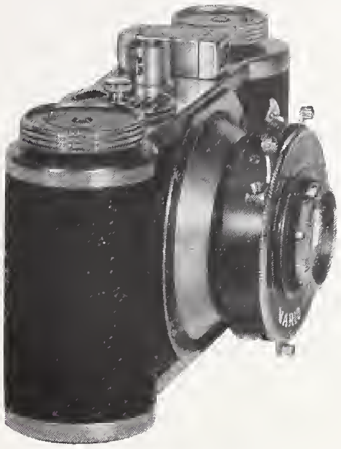
[Continued from page 479]

up. The glass should be larger than the camera field, of course, so that the edges will not show. In animating, the cover is lifted, a letter or a portion of a line is scraped off, the cover is replaced and the exposure is made.

At this stage, prepare an animation guide, or script, in which you note each step in the operation. You can prepare this running forward, as it would finally appear on the screen, but you would actually follow it backward with the camera. In following the script backward, you must remember to do everything in reverse, as noted in the second column. When the dot appears, of course, you scrape it off. When the finished picture calls for a fade out, you would fade in, and so on. This New York to Chicago trip reduced to script form would run as follows:

End camera work here
Run 5 ft. of map
Dot appears . . . . (Take it off)
Run 6 frames
Animate New York on . . . . . . (Scrape it off letter by letter, exposing two or three frames between the removal of each letter.)
Run 16 frames
Animate line to Buffalo . . . (Take it off)
Dot appears . . . . (Take it off)
Run 6 frames
Animate Buffalo on . . . . . . (Scrape it off letter by letter)
Run 5 ft.
Fade out . . . . (Fade in)
Fade in . . . . (Fade out)
Run 5 ft.
Animate line to Chicago . . (Take it off)
Start camera work here

A sharply pointed wooden stick is used to remove the show card paint, and you will want to have a soft, dry brush handy to clear the celluloid of all bits of paint and dust before making the exposure that follows the scraping. You can obtain many different screen effects with this type of animation, depending upon whether your picture demands a fast or a slow tempo. The names of the cities can be removed all at once or letter by letter. You can remove each letter of the word gradually, by scraping off a portion of it, taking a few frames, scraping off another portion and so on.



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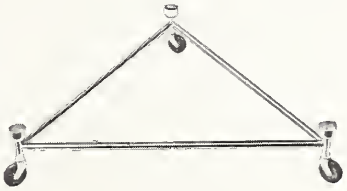

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By scraping along the bottom of an entire word, you may wipe it on. A good average tempo is obtained by removing one letter of a word at a time and exposing two or three frames between the removal of each letter. This gives a smoother effect on the screen. In animating the dotted line, you will get smooth results by removing a dot at a time and exposing one or two frames between the removal of each dot.

In doing all this, remember that you are working backward and that you must remove the last letter of a word first. Work from the end of every sentence or word to the beginning. The first letter to be read on the screen will be the last to be removed.

Of course, the best results will be obtained with a camera equipped with a single frame action. Frame counting devices are not necessary as long as the action is simple and there are no dissolves.

Which film?

[Continued from page 471]

very satisfactory results, but we cannot expect to get good shadow detail where extensive shaded areas occur in the scene.

Panchromatic, of ordinary speed, unlike orthochromatic, is sensitive to the full range of colors and, therefore, gives half tones more nearly those of nature than does orthochromatic. Within its exposure range, all colors and depths of filters may be used. It can be used even in exceptionally well lighted interiors, but it is not so serviceable for interiors which are lighted artificially as is supersensitive panchromatic. Being sensitive to all visible colors, panchromatic gives a much better tonal gradation and a softer, yet plucky, image, with a wealth of shadow detail that is quite beyond the more restricted range of orthochromatic film. Ordinary panchromatic usually has a greater sensitivity to blue than to other colors. To balance this and to cut the effect of blue light down to the same level of luminosity, a light yellow or green filter is used. These filters stop just enough of the blue light to balance it with the other colors of the spectrum.

Supersensitive panchromatic film is much faster, that is, more sensitive to light, than regular panchromatic. Roughly, it may be rated as about twice as fast in daylight and nearly three times as fast in artificial light. Supersensitive panchromatic is even more sensitive to the red end of the spectrum than to the blue end, and, as incandescent lamps give out a preponderance of red and yellow, the superspeed film is more greatly affected by artificial light than by daylight.

This statement should not be misunderstood. It means that, candle power for candle power, artificial light has more exposure effect on film than daylight. In other words, for equal values of daylight and incandescent light, as measured by a photometer, the incandescent light calls for less exposure. Usually daylight is so much stronger than any incandescent illumination that far smaller diaphragm openings can be used than with artificial light.

Supersensitive panchromatic is so fast, in fact, that, when it is used for sunlit exteriors, one is likely to overexpose unless a filter is used. Supersensitive film is most valuable for filming at fast camera speeds, for poor lighting conditions and for filter work.

The relative speed of the different types of film is approximate only. For particular brands, reference should be made to the more accurate classification to be found in the booklet accompanying any good exposure meter.

Every box of amateur movie film contains a leaflet giving valuable advice for judging exposure. Until you become familiar with the types of film you are using, study these pamphlets as religiously as an acolyte studies his litany. They will save your time, temper, film and money, for they are given to you by the manufacturer of the film in an earnest attempt to cooperate with you in making the best pictures with the film he offers.

If you have any kind of exposure meter, use it. Almost any is better than your unaided judgment. If you can afford it, buy a good meter of the photoelectric type. It is expensive, but not unduly so, and it is not really to be classed as an expense, if you use much film. It is, rather, an investment that pays high dividends in correctly exposed footage and in hard cash saved on film that otherwise would go into the waste can.

In addition to these general classifications of black and white reversal film, there is color film. This has been so fully discussed in recent articles in Movie Makers that it need not be considered here.

To make titles by reversal, any of the general classes of films already referred to will give satisfactory results, but, as color is not involved, the lower priced will do just as well as the more expensive. Positive film can be used either for direct or reversal titles, but, as not all positive film is sold with processing prepaid, the user may have to do his own developing or send it, at an additional charge, to a processing laboratory. Such laboratories are found usually only in large cities, and many of them prefer to confine their work to larger scale, commercial orders. However, local laboratories, welcoming work from amateurs, are increasing in number, and many photo finishing places are adding home movie laboratories, so that, before long, most movie makers may hope to find laboratory facilities near their homes.

Color blind positive film can be used in the camera, as has already been said, and it is commercially available, conveniently spooled and with reversal charge included in the purchase price. In using positive film, the exposure must be materially increased, by opening the diaphragm. The resultant negative, and reversal print, if made, will usually, even if very soft development is employed, be stark and contrasty, compared to other emulsions. But, because of its contrast, positive stock is ideal for making brilliant titles with deep blacks and transparent whites. In this case, it must be developed in a suitable contrast developer, which works cleanly and without fog.

Some persons believe that positive stock, if used in the camera, should give a positive reel, ready to screen. This error is natural because of the nomenclature. Positive stock is really the same as negative, except that it is coated with a slow, contrasty emulsion and is used for making *positive* prints. It is possible to make prints on regular negative stock, but, as negative stock is very much more expensive and less suitable to the manipulations of printing and processing than the less sensitive positive emulsion, it is rarely used except for making duplicate prints. Even in this case, reversal, not regular negative, stock is used; it is printed from an original positive, and is processed by reversal, so that a duplicate positive is obtained. This is done to save the cost of an intermediate duplicate negative, which is required in the negative positive, or non reversal, processing.

It will be seen, then, that the movie amateur should not greatly concern himself with brands of film and a decision as to which to use, if he selects products of reputable film manufacturers. But he should give very careful attention to the particular type of film he uses for a particular purpose. Many emulsions are available and their misuse is inexcusable. If they are put to the work for which they are intended by their makers, personal filmers will secure from their use results that meet every wish.

It's done with glass

[Continued from page 469]

tographic values of the setting. Very few artists have the ability necessary to do a glass painting.

At times, in some of the more elaborate glass shots, several glasses are used in order to produce an effect of depth and a diminishing perspective. When depth is added by a series of glasses, the paintings are as large as ten by twelve feet. Such glasses are placed parallel, one behind the other. One such scene was used in *King Kong* to show the giant

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ape fighting on the Empire State Building in New York. Two glasses were used; one showed the skyscrapers and near foreground, while the second glass, set up a few feet in back of the first, represented the more distant buildings and the skyline. In the immediate foreground was the miniature construction of the Empire State Building on which the miniature ape was set. The movie camera photographed both the ape on the model and the glass paintings in the background.

Belgian plate glass and oil paint of a good grade are used. The glasses range in size from three by four feet to five by seven and larger. In the painting process, a "tooth" is stippled on the glass in a dead black matte. In order to control the tonal key and contrast, the whole picture is lightly "done in" and then developed so that the blacks and greys of the painting correspond to the real life portion of the film. The artists usually paint "through a camera lens," by viewing the painting through the camera view finder after almost every brush stroke, so as not to go astray in values. If the real life film were photographed under certain lighting conditions or if there had been dust or haze in the atmosphere, it is the duty of the artist to get the same effect in his painting. In certain scenes in the Pioneer Production, *Dancing Pirate*, filmed in Technicolor, a skyline was added by means of glass. For this scene three negatives had to be matched in order to get the required color tonal range. The painting had to be matched for the three primary colors, whereas heretofore only one negative was matched for the black and white film.

Byron Crabbe, who worked with Willis

Here the scenery was added by rear projection because the stream required motion

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O'Brien in such films as *Lost World*, *King Kong* and *Last Days of Pompeii*, paints the glasses used in his miniature shots so that the painting and the miniature portion of the setting are photographed simultaneously. The glass with the painting is set up about two feet in front of the camera. Through the transparent portions of the glass the camera shoots the miniature, while at the same time photographing the painting on the glass.

If it were not for miniatures, glass shots and process photography, such things as elaborate architectural constructions, scenery to fit the specific requirements of many films, closeups of actors in airplanes and destruction scenes would not be possible.

To such men as Willis O'Brien, Fargiot Edouart, Ralph Hammeras and Fred Jackman, as well as these pioneers in the art—Irvin Willat, Ferdinand Pinney Earle and W. L. Hall—goes the credit for bringing these things to the screen.

Down by the docks

[Continued from page 481]

a filter. With regular black and white film, a yellow or red filter of medium density will be found most useful. Interesting effects over water can be secured by the use of a cherry red filter, such as the Wratten 25-A. Night effects, if you should want them, can successfully be produced by using a deeper red filter (Wratten F). Of course, only panchromatic film can be used with red filters.

Remember another thing. Never, under any circumstances, shoot without first putting a sunshade on the lens. Near the water, and on the water, light is reflected in all directions, and there is no reason deliberately to court poor results by permitting stray light rays to penetrate the lens and thus to veil the film.

Tugs can be shown warping a liner into her slip. The white, and sometimes black, smoke shooting from their stacks makes pleasing patterns against the sky. This is particularly effective when shot with a filter that brings out strong contrasts. Water may be filmed as it is churned to a white foam by the propellers of ships, particularly huge liners. There is plenty of opportunity to capture delicate shading and detail in the white water. If you catch it just right, the film will be a "find." Seagulls are soaring above, outlined against a cloud flecked sky. A telephoto lens is best for them, because of the distance. Short scenes of gulls always can be worked into a water front film in opportune places. Loading and unloading freight is easily filmed. Low camera angles result in exceptional shots. Try for patterns created by the steel cables that hoist the loads. The booms, too, can be got with a little care, adding to the effectiveness of the

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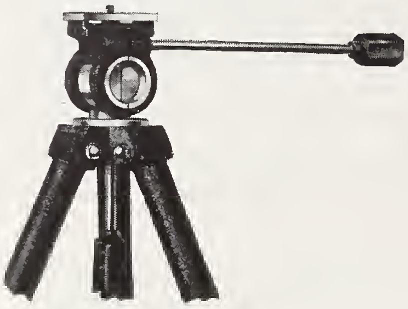

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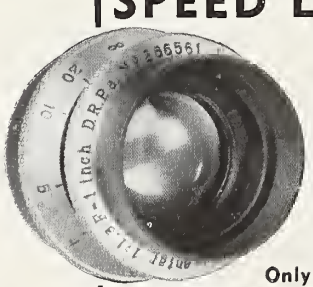

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scene. Fishing vessels are always worth recording. Their usually stumpy masts make pictorial designs against the tall buildings of the city or against the sky, and their decks, usually littered with fishing gear, offer interesting flashes. Foggy days are a treat for the real enthusiast, for it is at such times that he can probe the wooly mists, picking out a vague shape here, a sharply defined object there. The water front changes not only daily, but from hour to hour, and its interest is always freshly created. A sunny day reveals one scene, a rainy period another, fog a third. Scenes of crowds can be filmed when liners arrive and depart. All kinds of characters can be found and all kinds of emotions pictured.

Filming the water front enables the amateur to enjoy long walks in new territories where even the air is different. A mixture of salt, sea tang, oakum, tar, hemp, coffee, fish, steam and a hundred dissimilar odors assail him. Generally, a fresh and keen breeze flicks his face.

Decidedly, water front cinematography pays big dividends in the joy of the filming and in the novelty of the screen results. Put it on your preferred list!

The clinic

[Continued from page 480]

in ghosts!" The stranger indicates a polite "Don't you?" or "Really?" and disappears. A fixed camera position is necessary for the last scene. After the "Don't you?" is indicated, the cameraman says, "Freeze!", and stops his camera. The ghost story reader freezes in his position, the stranger gets out of the scene, the camera grinds again and the reader continues his interrupted motion. He can then, quite properly, indicate wide eyed astonishment.

Editing board ■ An excellent adaptation of an old editing system has been worked out by Edgar J. Kunze, ACL. An arrangement to hold the film clips is made from light boards in which auger holes have been bored. A thin sheet of plywood is tacked over the bottom of the boards so that the film coils that are placed in the holes will not fall through. Paper gummed numbers are pasted on the board to aid in keeping the shots straight when working.

Tilting head ■ Often, the still camera fan who purchases a movie camera wishes to use the latter with one of the regular still camera tripods. Inasmuch as these tripods seldom have a tilting head, he finds that he is somewhat handicapped. Two pieces of strap iron, a rivet, two wing nuts and two bolts are needed to make a device that will solve his problem. The strap

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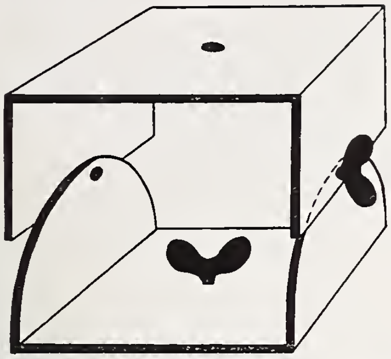


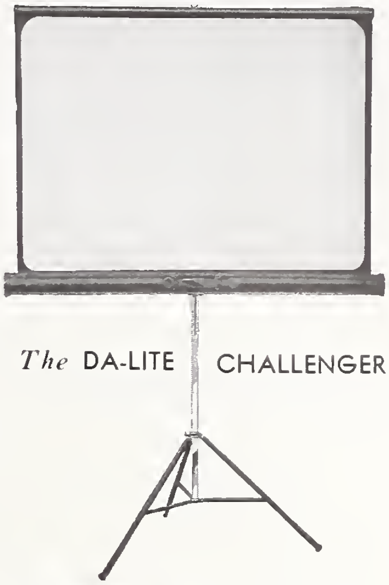
Design for homemade tilting aid for still camera tripods

iron pieces are bent to form two "U" shaped parts, as shown in the drawing on this page. They are drilled as indicated so that they will fit together when bolted on one side and riveted loosely on the other. The top piece is drilled to take a bolt which will fit the standard tripod socket on the camera, and the bottom piece is drilled so that the tripod screw may be pushed through and secured with a wing nut, as shown. While this top will not support the heaviest cameras, nor will it allow smooth "panning," it will serve very well for the average filming needs.—*Asa H. Paine, ACL.*

Exposure focus ■ Overexposure often has the effect of making a picture appear very fuzzy and soft or hazy, and this condition is sometimes mistaken for incorrect focus. When making a test shot to see if a lens is focused properly, one must be careful to get as good exposure as possible, in view of this point. Fuzziness because of overexposure seems particularly prominent with color films.

Winter cleaning ■ One of the best insurances of good filming results that any movie maker can procure is to have his camera and lenses checked annually. The manufacturers are glad to do this, and it insures a clean, well oiled mechanism, which will work perfectly.

Family album ■ Here is a stunt that will prove a good deal of fun for a group of people. Dig out an old fashioned oval picture frame and remove the glass and picture. It should be just large enough to frame a person's head attractively. Find a piece of black velvet—an old curtain or drapery—and hang it in an open doorway. In the drapery, cut a hole just about the size of the frame, and hang the frame in front of the hole. Then the subjects can sit in a chair behind the curtain, their faces being seen through the picture frame which should be centered in your finder. Arrange a pleasing portrait lighting, and you are ready for a series of charming personality studies.



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December MOVIE MAKERS will contain the listing of the TEN BEST NON THEATRICAL FILMS OF 1936. All pictures that win this honor, or are given Honorable Mention, will be discussed in full in the article on the 1936 Ten Best.

Here are just a few of the other attractions of December MOVIE MAKERS—

- ★ A discussion of a simple but amazingly effective interior lighting method. If there is such a thing as "the secret of successful interior lighting," this is it!
- ★ Actual reports of "how I did it" from leading movie makers who will share their experiences with you.
- ★ A page of frame enlargements from amateur film achievements of a decade. Here, in review, you will find actual frame reproductions of the successes of the past and a sample of those of the present.
- ★ The story of the League's Tenth Anniversary Dinner.
- ★ An accurate and entertaining history of amateur movies, from the earliest efforts of pioneer inventors to the present period.
- ★ Filming closeups and interior shooting with an 8mm. camera. Here is an article that shows how easy it is to get with an 8mm. camera the sort of shots that you usually associate only with the most advanced equipment.
- ★ A discussion of lens fundamentals.

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ACL Tenth Anniversary Dinner

THIS number of MOVIE MAKERS went to press before the Tenth Anniversary Dinner of the Amateur Cinema League had taken place. As this is written, that festival occasion gives promise of being an unusual gathering. A historical exhibit of cameras, projectors and film has been prepared that will show the progress of amateur movie equipment from the earliest days of our hobby. A special film has been assembled, in which the very first 16mm. footage ever reversed is shown, as a beginning, and in which the whole unrolling of personal film advancement is presented on the screen. Speakers will include Stephen F. Voorhees, ACL, President of the League; A. A. Hebert, ACL, its treasurer; Dr. C. E. K. Mees, vicepresident of the Eastman Kodak Company; Joseph Dombroff, president of the National Photographic Dealers Association; Governor Carl E. Milliken, of the Will Hays office; Rudy Vallee, ACL, and Beth Brown, ACL. A fuller report of this interesting session will be given in December MOVIE MAKERS.

There are two kinds

[Continued from page 473]

floor. About the only excuse thus far found for shooting upward through a trap is in football huddles.

Outdoors, angles become far more important. Careful selection of angles not only gives better viewpoints, but often will furnish a means of controlling the setting of action. On one occasion, a low bough suggested an ideal placement for a shot of a boy and a girl, with the girl seated on the limb. But a straight shot also included a hot dog stand. An angle was planned in which the camera shot diagonally upward, and the result was a delightfully picturesque scene.

But just a word on this and similar angles: remember foreshortening. In the scene just mentioned, the camera was directed to shoot the feet at the point furthest from the lens. Had the shot been "feet first," the feet would have been enormous. The same holds good of an upward shot of a person. The head may become so foreshortened that the heroine will look like the orange headed girl of the side shows. What's nearest the camera looks the largest.

The upward shots are useful not alone for their pictorial value, but in escaping unwanted area. One scene of a girl leaning over the railing of a vine covered porch was charming except for the lower three feet showing an ugly railing of gingerbread design. An upward angle cut out those three feet and made a picture.

In another scene, a girl was filmed against a background of sky and clouds. To get this, the camera was tilted upward at a sharp angle, not only catching the sky but avoiding an ugly shack in the middle distance.

Some eliminations may be less drastic than the above, but it pays to study angles before shooting. Perhaps it is just an ordinary pose against a rustic gate. It may not seem to matter much just what is shot, but perhaps one view will include a telegraph pole or light wires. On the other side is a shapely bush. The cameraman, intent only on the girl and the general effect, overlooks the pole, but later the spectators will not. In another shot, perhaps an open space, scarcely noticed, will result in an unsightly white blotch on the film, whereas working from a knee high position will eliminate that background and secure, instead, an overhang of foliage that will emphasize instead of detract from the figure. And, speaking of foliage, remember that the soft sunlight filtering through the trees may look beautiful, but in the film you may get merely a bunch of polka dots for a background. Select an angle to avoid the direct infiltration of sunlight and you will have no cause for vain regret. No camera worker deserves the name of movie maker until he has learned to evaluate every factor in a shot and not merely the central figure.

Probably one of the flattest effects to be had with a camera is a shot of the beach. The eye takes in the wide sweep of blue water. In the film, it is likely to come out as a flat, rather narrow straight line. I shall never forget my first marines. All I got on ten plates was a wide strip of sand, a narrow strip of water and a larger strip of sky. The next time I shot low and got the waves, and the other hundred miles of Atlantic Ocean did not matter. In other words, if you are getting beach stuff, lower the camera. If you work in the water or from a boat, shoot down rather than up and avoid too much flat background.

A camera angle often can revalue a scene completely. Take, for example, a bit in which an eavesdropper hides behind a tree to spy on the lovers. You can keep alternating between the man behind the tree and the happy pair. Instead of that, have the spy climb into a tree. Show him going up and, with a single shot, establish him as being in the tree. Now call him down and shoot the spy scenes from the same spot. If you have picked the scene carefully, you can shoot through the branches and get entirely away from the need of repeating shots of the spy himself. The audience knows that these shots are what the spy sees, and they are infinitely more picturesque.

Along the same lines, in a baseball story, a small boy glued his eye to a knot hole in the fence. Later, the ball game sequence was filmed through a mask with a knot hole effect. It made the familiar baseball game look entirely different. The kid had no particular reason for being in the sport reel, but he "alibied" the effect and made the film that much more interesting.

When you have acquired a command of angles from these simple devices, you can out angle Hollywood. But remember that angling in general is not cinematic show off, but a simple and useful device for improving your general photographic narrative through movement of the camera, its elevation or depression, and the viewpoint from which scenes are made. Most angle shots will bring you no direct fame, but they will help materially to establish your reputation as one who can make movies interesting.

Amateur clubs

[Continued from page 476]

screened and clinically reviewed by Mr. Space, assisted in this work by Charles J. Carbonaro, ACL. Fred Baker has been appointed chairman of the Movie Group for this year by club president Frank Liuni, ACL, according to the group's interesting bulletin, *The Filter*. One of the new activities which Mr. Baker has already initiated will be a schedule of technical papers to be prepared and presented by individual members of the group.

Newburgh studies ■ The different types of films and their proper uses by the modern amateur movie maker were the subject of a discussion by A. H. Dockray, of the Eastman Kodak Company, at a late meeting of the Newburgh (N. Y.) Amateur Cinema Club, according to a report from secretary Ira Merwin, ACL. Mr. Dockray illustrated his points with two reels of selected material and stressed the marked decline in filming costs since the beginning of the hobby. A clinical screening of members' reels concluded the program.

Eights award ■ Two prizes, each a roll of film, were given to winners of the lucky numbers drawn at the Los Angeles 8mm. Club meeting recently, according to Barnes G. Ward, secretary. These films were to be exposed and the results screened at the next meeting. *Red Cloud Lives Again* and *Tarzan, Jr.* were projected and various films of individual members were screened for group analysis and criticism.

In Montreal ■ The first fall meeting after summer vacation brought to a close the summer competition of the Montreal Amateur Movie Club. Plans were made to include

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lectures, demonstrations and projection evenings for the fall season, and F. W. Motton, a club member, spoke on *Filming the Vimy Pilgrimage*. His film on that subject was screened at the next meeting, along with films from the summer competition. H. Black, of the Cunard White Star Lines, Ltd., and D. Leggate of the *Montreal Star* were the judges of the contest, awarding a plaque to the winner and leaders to those scoring sufficient qualifying marks.

Score sheets ■ Members' films screened at meetings of the Philadelphia Cinema Club, in Pennsylvania, will be judged and scored this year, by each of the members present, on a formal analysis sheet prepared by the Club Department of the League and adopted by that club, according to a late report from B. M. Levene, chairman of the publications committee. This group is now going into its second year of activity, with monthly meetings at the Engineers' Club quarters.

The official insignia of the Philadelphia Cinema Club

New club ■ Members of the 3 H Camera Club, in Homewood, Ill., had an active summer and fall. Included in their programs were the projection of a film on Jasper National Park; a talk, with cinematic illustration, on color filters, by Mr. Peterson; the formal adoption of a club constitution; screenings of 8mm. vacation and travel films by E. E. Dillon, ACL, and by J. W. Foraker. Dr. C. M. Scarborough, ACL, gave a talk on titling, screened his film of A Century of Progress in Chicago, 1933-34, and then showed samples of both the new and old type color films. The permanent officers elected were G. H. Durand, president; Dr. E. A. Rhind, vicepresident; Mr. Golden, secretary and treasurer.

Two for S. I. ■ The Staten Island Cinema Club, N. Y., entering its second year of activity, opened its new season with a meeting at the home of Herman Andresen, ACL. The meeting featured a contest for unedited, uncut films of not over 100 feet of 16mm. or fifty feet of 8mm., all films being projected in exactly the condition

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in which they came from the processing station. A scenario committee was appointed to consider the possibilities of producing a club photoplay, and G. T. Smith, ACL, and E. W. Wilby, ACL, were announced as a program committee for the new year.

Boston plans ■ In Massachusetts, members of the Boston Cinamateur Club have made three big decisions: they are going to change the name of their club; they are going to incorporate a still group into the ranks; and they are going to do a photoplay! After these three points were thoroughly discussed at their first fall meeting, Dr. Alan Lukens and Ralph Aubin screened 800 feet of Kodachrome of a Bermuda cruise. Albert Genaske, ACL, followed through with his 1936 version of Lake Kezar and a Kodachrome film of Metropolitan District Commission construction activities.

Under the floods

[Continued from page 478]

would be thinly outlined by a spotlight from the back, because there is neither art nor sense in a face or object that loses its outline in a background of equal darkness—a point which is always to be watched in the case of hair, which requires a *contrasting* background.

Second among the variable factors is the *height* of the lights. Daylight falls from above and is reflected from the ground, so that we are accustomed to most objects being brighter above than below. For this reason, normal lighting will tend to come from slightly above, and, by contrast, a mystery effect will be produced when all the usual shadows are reversed, when the light is projected upward from below the chin.

To avoid conflict with the greatest of all difficulties, which is the law that light diminishes as the square of the distance, the continuity will have to be written in such a way as to minimize the *range of action*. One foot either way may destroy the best lighting effect when it is planned on a small scale. It takes only a little ingenuity to break up a simple story into separate units, each enacted almost entirely in closeups. Under these conditions, with very limited lighting equipment, the movie maker who is willing to experiment and note his results can obtain lighting quality equal to that secured in similar scenes in any theatrical studio. All the factors are within the range of his complete control.

The ideal subject, as far as range is concerned, is the baby playing in his high chair, squeezing the plunger of a bottle of Seltzer (a sure fire situation which never fails to bring a big laugh), experimenting with a pan of fudge or investigating the top of a meringue pie. Sharp focus, wide open lens, no possibility of stepping out of bounds, no jumping up and down—a perfect cinch!

Kitchen subjects — mixing dough, making a pie, decorating a salad—can be handled similarly, if the lady is willing. A couple of men discussing politics in club chairs, a game of contract, a group at the piano—the number of such genre shots is unlimited. Even if they constitute the whole scene, they will prove as interesting later as any artificial plot, perhaps more so. The quality of reality stands the test of survival; invented effects perish as soon as the novelty wears off.

To show the continuity treatment required for home filming with only the most modest equipment, here is an outline of a family reel, called *A Dull Winter Day*. Note particularly how, every time a person is in danger of having to move (which would require a bigger field, different light, etc.), the scene is cut to some other person or place, so that, in the brief time lapse, the first party has had time to arrive elsewhere. The cut back is the editor's and the director's best friend. The scenes run as follows: 1. Mother making a pie. 2. Baby playing in high chair. 3. Father seated disconsolately by window, paper fallen on his lap, seeing— 4. Very gloomy exterior, raining, leaves falling, or snow, slush. 5. Cut back to Mother. She hears something— 6. Closeup of doorbell ringing. 7. Inside of front door; it opens; a head pops in. "May I come in?" 8. Cut back to Mother; she hears and answers, "Oh, come in!" 9. Cut back to medium shot; friend enters; he carries several packages, beaming. 10. Dog barking a welcome. 11. Group by door; Mother has just joined friend; Father enters; greetings. 12. Closeup of packages; friend opens one. It is a goldfish in a bowl. 13. Baby crying. 14. Group by table hears Baby. 15. Group enters scene with Baby and shows goldfish to Baby who stops crying. 16. Closeup of Baby inspecting the goldfish.

Nothing to it, of course, but how priceless ten years from now!

Río reels

[Continued from page 474]

Janeiro is the old Campo de Sant'Anna, or Praça da Republica as it is officially designated today. Aside from its truly magnificent tropical landscaping, the park is stocked with innumerable indigenous birds and animals so tame as to make docile movie actors. A bag of peanuts will reward the visitor with shots of secretary birds, flamingoes, mud hens, quaty, paca and other denizens of the Brazilian Forest—cine material such as would be the envy of many a highly paid expedition sent out to find these things.

But enough of mountains and parks and birds and things; what about the proper Brazilian himself? Your true

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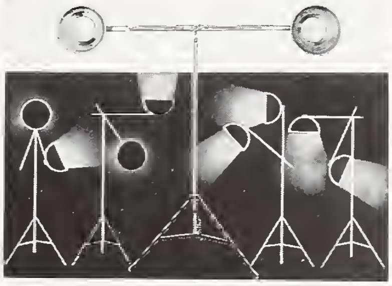

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A trip to the Central Market is worth while. What a great city eats is always a matter of interest and what a great tropical city eats is doubly so. In season, one encounters here unfamiliar tropical fruits and vegetables and strange forms of the vegetables that we do know. Live game is frequently on sale—wild ducks, wood pigeons, armadillos, terrapin and great sea turtles. The whole scene is enlivened with shrieking macaws, monkeys, garrulous parrots, gesticulating market men and bargaining customers from every walk of life. It is an experience not readily forgotten. The Central Market is decidedly worth a visit. The food arrives in the late afternoon, or in the early morning, in lateen sailed boats, coming from all parts of the great bay, or in great ox drawn carts, trucks and electric freight cars. The fishing fleet, equipped with boats imported from Portugal, with its cargoes of tropical fish is more than picturesque. Naturally the market is a rich field for the color filmer.

In Rio de Janeiro, there is a National Touring Club ready to help the visitor in the solution of his problems and there is an amateur photographic society, as well as representatives of all the great photographic companies of Europe and America, offering completely equipped laboratories and material of every type and necessity.

Adapting reality

[Continued from page 477]

figure of the boy on the ground (without the mattress, of course) as our extras crowded in. Later shots showed the ambulance arriving and the boy being taken away. Our small group and the arrival of the ambulance collected a curious crowd of fifty or seventy five persons and, since the camera was not conspicuous and interest was centered on the boy, the sequence was very real.

Two sequences that we thought would be easy proved very difficult. In one we wanted to show, in closeup, the feet of a woman walking progressively slower and slower so that her gait would represent her unsuccessful search for work. Sidewalks and the bottom of buildings would be the background. In spite of all our efforts, pedestrians got in the way, the camera jiggled as we drew it along the sidewalk on a small truck and we could not keep the feet in the frame.

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We finally filmed the scene indoors in a large cement floored room, using brilliant spotlights mounted on the truck to illuminate the feet and cast shadows similar to those cast by the sun.

In the second sequence, we wanted our leading man to demonstrate insurance payments by piling up groups of garden peas on a porcelain kitchen table during the preparation of supper. To our disgust, the peas bounced and rolled everywhere, refusing to stay put, until we finally dampened them to make them stick together. Then, to cap the climax, we had the leading lady put some peas on the stove to cook at the end of the sequence, only to have all the ladies at the preview point out that the peas were being cooked without water having been added.

In one dramatic sequence, we heightened the effect by camera position and tempo. We wanted a nurse to discover that the patient, whose record card she was reading while washing her hands, was an old friend.

We began with a medium shot of the girl going to the sink, placing the card beside her on a stand and starting briskly to wash her hands. Our next shot was a closeup of the hands only. Then followed a closeup of the entire report card, another shot of the hands washing, the card closeup swiftly dissolving to an extreme closeup of the name only. the hands stopping with a jerk and tightly clasping each other, another flash of the name closeup, a long, slow shot of the hands unclasping and dropping down to the edge of the sink and, finally, a medium shot as the girl slowly turned to look at the figure on the bed.

Probably our most difficult scenes were those made in a hotel dining room and lobby at night. The fuses were carefully checked, regular Photofloods were installed in all fixtures that would show and No. 4 Photofloods were placed on high stands to illuminate the scene generally. To avoid a flat effect in the dining room, we placed small Photofloods in back of several of the tables to back light and side light some of the groups of diners. In the lobby, we had to place most of our extra flood lights behind the several large pillars, with a few shining down from the balcony. For this large area we obtained quite satisfactory lighting from three No. 4 Photofloods, four regular flood bulbs in clamp hand reflectors and twelve floods in standard reflector units.

One of the helpful stunts that we discovered during the production is that a fire in a fireplace can be produced for photographic purposes by wadding newspapers in tight rolls and igniting them. The light given had excellent quality for photography, being brighter than that of a log fire. Then, too, there is little heat and the fire is soon over after the scene is done.

Another stunt depended upon perspective for its success. We wanted a shot of a seaman catching a mooring line from a ship and passing it over a bollard on the pier. We got our character dressed as a sailor but were unable to get cooperation from any of the ship captains. We therefore went over to one side of a dock, where a vessel was anchored about fifty yards away. There we put up a pole about nine feet high and, keeping it out of camera range, fastened a heavy rope to the top. Now, if our camera had been high, the large stretch of water between us and the boat would have been plain, but by lowering the camera to the dock, the ship seemed right along the side and, when our sailor took the rope, made it fast and waved his hand as if in signal, the illusion was perfect.

We had our problems both easy and difficult of solution, but every new shot was a new challenge and fun because of it. I'm afraid we're still game to try it again.

Practical films

[Continued from page 485]

left America to make a film of American colleges in the Near East for the Near East College Association to use in raising a permanent endowment for those schools. For this important 16mm. enterprise, he will film educational institutions in Athens, Sofia, Istanbul and Beirut. The finished film will be about 1200 feet, and all exteriors will be done in Kodachrome. The interiors necessarily will be in black and white because of insufficient lighting facilities in that part of the world. Each reel, as it is exposed, will be sent back to London by air mail for processing.

News of the industry

[Continued from page 484]

Gevaert reversal ■ A prominent firm, long noted for the excellence of its photographic products, now has extended its scope to include the 16mm. field. The Gevaert Company of America, Inc., this month announces the availability of three types of Gevaert reversal safety films: (1) the Ortho Reversal, (2) the Panchro Super Reversal and (3) the Panchro Fine Grain Reversal. The Ortho Reversal is an emulsion of wide latitude and good color rendition for all outdoor shots. Its speed under the Weston exposure meter rating is given as 16 by daylight and 6 by tungsten or artificial light. The Panchro Super Reversal film has a high speed rating, which aids in making good pictures under adverse lighting conditions and by artificial light. Weston factors for this emulsion are given as 24 for outdoor and 16 for tungsten light.

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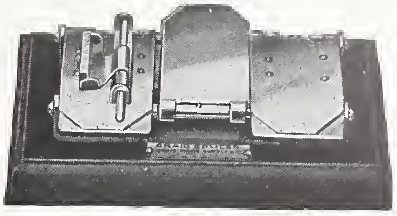

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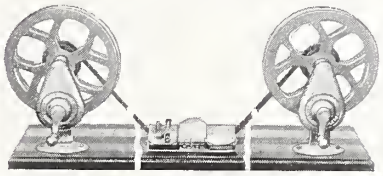

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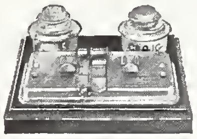

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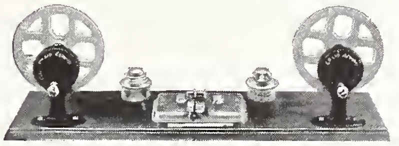

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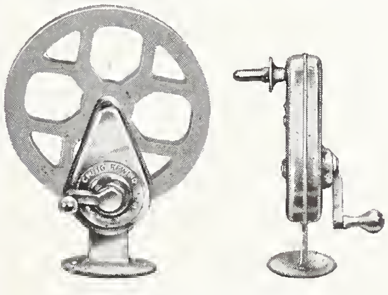

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San Diego: Bunnell Photo Shop, 1033 Sixth Ave.
Eastman Kodak Stores, Inc., 419 Broadway.
Harold E. Lutes, 958 Fifth St.
San Francisco: Camera Shop, 145 Kearny St.
Duhem Motion Picture Mfg. Co., 135 Hayes St. (Civic Center).
Eastman Kodak Stores, Inc., 216 Post St.
Hirsch & Kaye, 239 Grant Ave.
Miniature Camera Shop, 1600 Post St.
San Francisco Camera Exchange, 88 Third St.
Schwabacher-Frey Co., 735 Market St.
Sherman, Clay & Co., Kearny and Sutter Sts.
Trainer-Parsons Optical Co., 228 Post St.
San Jose: Sherman, Clay & Co., 273 S. First St.
Webb's Photo Supply Store, 66 S. First St.
Wolff's, 94 S. First St.
Santa Ana: Stein's Stationery Store, 307 W. Fourth St.
Santa Barbara: J. W. Collinge, 19 E. Canon Perdido St.
Santa Monica: W. W. Martindale, 3rd & Bway.
South Gate: Hollywoodland Studios, 9320 California Ave.
Stockton: Holden Drug Co., 345 E. Weber Ave.
Logan Studios, 20 N. San Joaquin St.
Nathan Reiman, 528 E. Main St.

COLORADO

Denver: Akin & Bagshaw, Inc., 1425 Williams St.
Eastman Kodak Stores, Inc., 626-16th St.
Haanstad's Camera Shop, 404-16th St.
Home Movie Sales Agency, 259 S. Corona St.
The May Co., 16th & Champa Sts.
Mile High Photo Co., 320-17th St.
Rocky Mountain Booking Co., Symes Bldg.
Grand Junction: Lincoln Park Pharmacy, 72 N. 12th St.
Gunnison: Little Art Studio, 247 N. Main St.
Pueblo: Camera Craft Shop, 503 Court St.
Sterling: Fortner Camera Supply Co., 118 N. Third St.

CONNECTICUT

Bridgeport: Fritz & Hawley, Inc., 1030 Main St.
Harvey & Lewis Co., 1148 Main St.
Bristol: Lee E. Paulmann, 252 Main St.
Hartford: Harvey & Lewis Co., 852 Main St.
Watkins Bros., Inc., 241 Asylum St.
Meriden: Broderick & Curtin. 42 E. Main St.
Victor M. Schmelzer, 15 State St.
Middletown: F. B. Fountain Co., 483 Main St.
New Haven: Fritz & Hawley, Inc., 816 Chapel St.
Harvey & Lewis Co., 849 Chapel St.
Mongillo's, 193 Church St.
Yale Cooperative Corp., 300 York St.
Norwich: Cranston Co., 25-29 Broadway.
Torrington: Flieg & Newbury, 45 Water St.
Waterbury: Curtis Art Co., 65 W. Main St.
Wilhelm, Inc., 139 W. Main St.

DELAWARE

Wilmington: Butler's, Inc., 415 Market St.
Delaware Amateur Motion Picture Sales, 616 W. 32nd St.
Frost Store, 915 Shipley St.
Wilmington Elec. Spec. Co., Inc., 405 Delaware Ave.

DISTICT OF COLUMBIA

Washington: Cinema Art Salon, 1325 Connecticut Ave., N. W.
Columbia Photo Supply Co., Inc., 1424 New York Ave., N. W.
Eastman Kodak Stores, Inc., 607-14th St., N. W.
Fuller & d'Albert, Inc., 815-10th St., N. W.
Izzy's Exchange, Inc., 905 D Street, N. W.
Robbin's, National Press Bldg., 529-14th St. N. W., opposite Willard Hotel.

FLORIDA

Jacksonville: Eastman Kodak Stores, Inc., 129 W. Adams St.
Miami: Miami Photo Supply Co., 269 E. Flagler St.
St. Petersburg: Robison's Camera Shop, 410 Central Ave.
Tampa: Burgert Bros., Inc., 608 Madison St.
The Camera Center, 310 Twiggs St.
Tampa Art Supply Co., 516 Tampa St.

GEORGIA

Atlanta: Eastman Kodak Stores, Inc., 183 Peachtree St.

IDAHO

Boise: Ballou-Latimer Co., Idaho at 9th St.
Burley: Walgreen Drug Co., 402 N. Overland.
Pocatello: Cook Drug Co., 333 W. Center St.
Wallace: Bradshaws, 517 Bank St.

ILLINOIS

Chicago: *BASS CAMERA CO., INC.*, 179 W. Madison St.
CENTRAL CAMERA CO., 230 S. Wabash Ave.
Chicago Camera Co., 2322 S. Michigan Ave.
Almer Coe & Co., 78 E. Jackson Blvd.
18 So. La Salle St.
105 N. Wabash Ave.
Eastman Kodak Stores Co., 133 N. Wabash Ave.
The Fair, Dept. 93, State, Adams & Dearborn Sts.
Marshall Field & Co., Photographic Dept., Sec. 59, State and Washington.
Lake Shore Radio Co., 3204 Broadway.
Movie Supply Co., 844 S. Wabash Ave.
Norman-Willets Co., 318 W. Washington St.
Post Office News Co., 71 W. Monroe St.
Randolph News, 63 W. Randolph St.
Seamans, Photo Finisher, 1953 E. 71st St.
De Kalb: Lundberg's News Stand, 324 E. Lincoln Highway.
Evanston: Almer Coe & Co., 1645 Orrington Ave.
Hattstrom & Sanders, Inc., 702 Church St.
Galesburg: Illinois Camera Shop, 84 S. Prairie St.
Oak Park: Hattstrom & Sanders, Inc., 1001 Lake St.
Ottawa: Corbus Drug Co., 709 La Salle St.
Peoria: Nichols, 104 S. Jefferson Ave.
Rock Island: Rocklan Film Exchange, 38-40 State Bank Bldg.
Rockford: Camera Craft Shoppe, 112 N. Main St.
Springfield: Camera Shop, 320 S. 5th St.

INDIANA

Fort Wayne: Howard Co., Inc., 112 W. Wayne St.
SUNNY SCHICK, National Brokers, Washington at Ewing.
Frankfort: A. G. Chittick, 206 E. Walnut St.
Indianapolis: R. B. Annis Co., 1505-7 E. Michigan St.
L. S. Ayres & Co., Dept. 290, 1 W. Washington St.
Wm. H. Block Co.. N. Illinois St.
W. Stuart Bussey, 17 E. St. Joseph St.
H. Lieber Co.. 24 W. Washington St.
Muncie: Otto Sellers, 402 E. Charles St.
South Bend: Ault Camera Shop, 122 S. Main St. 309 S. Michigan St.

IOWA

Davenport: Eastman Kodak Stores, Inc., 318 Brady St.
Des Moines: Eastman Kodak Stores, Inc., 808 Locust St.
Westing Photo Service, 3816 Sixth Ave.
Dubuque: Eldon Imhoff, 456 N. Booth St.
Iowa City: Rexall & Kodak Store, 124 E. College St.
Sioux City: Coates Radio & Electric Co., 511 Fifth St.
Eastman Kodak Stores, Inc., 608 Pierce St.
Waterloo: Macks Photo Shop, 615 Commercial St.

KANSAS

Parsons: Morris Studio, Box 664.
Topeka: Hall Stationery Co., 623 Kansas Ave.
Wichita: Lawrence Photo Supply Co., 149 N. Broadway.
Stevensons News Stand, 125 N. Market St.

KENTUCKY

Lexington: W. W. Still, 129 W. Short St.
Louisville: Bourne & Bond, Inc., 449 S. Fourth Ave.
W. D. Gatchel & Sons, 431 W. Walnut St.
Sutcliffe Co., 225-227 S. Fourth Ave.

LOUISIANA

New Orleans: Camera Shop, Inc., 322 Royal St.
Eastman Kodak Stores, Inc., 213 Baronne St.
Harcol Motion Picture Industries, Inc., 610 Baronne St.

MAINE

Bangor: Francis A. Frawley, 104 Main St.
Eastport: S. L. Wadsworth & Son, Central Wharf.
Portland: Bicknell Photo Service, Inc., 15 Preble St.

MARYLAND

Baltimore: Eastman Kodak Stores, Inc., 309 N. Charles St.
Folkemer Photo Service, 2814 Rayner Ave.
Lewy Movie Service, 853 N. Eutaw St., at Biddle.
Stark-Films, 219 W. Centre St.
Zepp Photo Supply Co., 3044 Greenmount Ave.
Hagerstown: R. M. Hays and Bros., Inc., 28-30 W. Washington St.

MASSACHUSETTS

Boston: Eastman Kodak Stores, Inc., 38 Bromfield St.
Hotel Statler.
Film Library of New England, 239 Columbus Ave.
Ralph Harris & Co., 47 Bromfield St.
Iver Johnson Sporting Goods Co., 155 Washington St.
Andrew J. Lloyd Co., 300 Washington St.
Montgomery-Frost Co., 40 Bromfield St.
PATHESCOPE CO., OF THE N. E., INC., 438 Stuart St., cor. Trinity Pl.
Pinkham & Smith Co., 15 Bromfield St.
292-294 Boylston St.
Solatia M. Taylor Co., 56 Bromfield St.
Visual Education Service, 470 Stuart St.
Cambridge: John H. Derby, Inc., Harvard Sq.
E. M. F. Electrical Supply Co., 430 Massachusetts Ave.
Holyoke: Guenther's, 359 Main St.
Lowell: Donaldson's, 75 Merrimack St.
Lynn: Hutchinson Hardware Co., 49-55 Munroe St.
North Adams: F. B. Oliver and Co., 60 Main St.
Pittsfield: E. J. Curtis, Inc., 397 North St.
E. C. Kilian, 411 North St.
Salem: North Shore Movie Service, 418 Lafayette St.
Springfield: J. E. Cheney & Staff, Inc., 301 Bridge St.
Harvey & Lewis Co., 1503 Main St.
Worcester: J. C. Freeman & Co., 376 Main St.
Harvey & Lewis Co., 513 Main St.
L. B. Wheaton, 368 Main St.

MICHIGAN

Ann Arbor: Calkins-Fletcher Drug Co., 324 S. State St.
Detroit: Crowley, Milner & Co., Dept. 124.
Detroit Camera Shop, 325 State St.
Eastman Kodak Stores, Inc., 1563 Woodward Ave.
J. L. Hudson Co., Dept. 290.
Flint: Gardner Photo Service, 1425 Detroit St.
Grand Rapids: Photo Service Shop, 44 Monroe Ave.
Jackson: Royal Film Service, 125 Michigan Ave., W.
Lansing: Linn Camera Shop, 109 S. Washington Ave.
Saginaw: Heavenrich's, 301 Genessee.

MINNESOTA

Duluth: Eastman Kodak Stores Co., 3 W. Superior St.
Hibbing: Lenz Drug Store, 307 Howard St.
Minneapolis: Eastman Kodak Stores, Inc., 112 S. Fifth St.
National Camera Exchange, 5 S. Fifth St.
Northern Photo Supply Co., 521 Second Ave., So.
Owatonna: B. W. Johnson Gift Shop, 122 W. Bridge St.
St. Paul: Eastman Kodak Stores, Inc., Kodak Bldg., 91 E. Sixth St.
H. W. Fisher Photographic Supplies, 381 Minnesota St.
E. B. Meyrowitz, Inc., 358 St. Peter St.
St. Marie Cigar & News Co., 96 E. 5th St.

MISSOURI

Kansas City: Calvin Co., B. M. A. Bldg., Union Station Plaza.
Eastman Kodak Stores. Inc.. 1010 Walnut St.
St. Louis: Aloe's Optical Co., 707 Olive St.
Eastman Kodak Stores. Inc., 1009 Olive St.
Erker Bros.. 608 Olive St.

(Continued on page 504)

The Panchro Fine Grain Reversal film is said to have all the qualities of chromatic rendition offered by the Panchro Super. except that it is slower in speed and has especially fine grain, a quality which allows projection on a larger scale, with finer detail. The rating of this emulsion is given as 12 for outdoor light and 8 for tungsten. All three films are packed in distinctive boxes, on daylight loading spools. and purchase price includes finishing and return from the nearest processing station. Of these, there are at present three in the United States and one in Canada. Foreign branches of this firm, well known in Europe and elsewhere. also are equipped to process this film. Further details may be had from the New York office, 423 West 55th Street, New York City.

Kodachrome 8mm. ■ Type A Kodachrome, the color emulsion made especially for use by artificial light with Photoflood lamps, is now available in 8mm., as well as for certain types of still cameras. This color emulsion, while made specifically for use under artificial light, may be used effectively in daylight also, by using a special filter supplied by the manufacturers. Type A Kodachrome for 8mm. sells at the same price as the regular Kodachrome in this width. In still film, it is available in size K828A, for the Kodak Bantam Special, and in 35mm. size, for use with miniature cameras; this latter size is called K135A.

Weston film speed ■ Speed values for use with current models of the well known Weston photoelectric exposure meter recently have been revised, brought up to date and reissued in an interesting new folder published by the Weston Electrical Instrument Corporation. Newark, N. J. In addition to film speed ratings, the folder contains a special section on color film, giving valuable hints on correct exposure for accurate color values. The new folder will be distributed to all Weston owners.

Featured releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bell & Howell Co., Chicago, Ill., offers the following sound on film subjects available through the Filmosound Rental Library: *Cyclone of the Saddle,* six reels, a typical Western involving Indians and the United States Cavalry; *Million Dollar Haul,* six reels, a police melodrama about warehouse robberies; *Yellowstone Park,* one reel, filmed and narrated by H. G. Peabody; Felix the Cat in *Switches Witches,* a one reel cartoon.

■ Cine Classic Library, Brooklyn, N. Y., has sound on film features and short subjects for rent and for sale.

■ Eastin 16mm. Pictures, Davenport, Iowa, has library films for sale; a catalog is available for a small charge.

■ Eastman Kodak Co., Rochester, N. Y., releases silent films in both 8mm. and 16mm.

■ Films Editorial Service, New York City, has library films for sale.

■ Garrison Film Dist., Inc., New York City, has 16mm. silent comedies starring well known Hollywood actors.

■ Walter O. Gutlohn, Inc., New York City, has two new sound film catalogs. One contains a listing of entertainment films: feature length subjects, cartoons, musicals and novelties. The other lists educational subjects exclusively: natural and physical science, sports and physical training, music appreciation, literature and travel.

■ Guy D. Haselton Travelettes, Hollywood, Calif., has a new film, *Boulder Dam—Its Power on Display,* 125 ft. silent, which shows the force of this man made wonder. *Hummingbird Home Life,* in 100 ft. or 200 ft. silent versions, is a delightful nature study.

■ Kodascope Libraries, Inc., New York City, has *The Arizona Terror,* a six reel sound film in 16mm., which follows the exciting Western pattern. *The Beach Party,* a Mickey Mouse cartoon, and *The China Plate,* a Silly Symphony, also are offered in sound.

■ Lewis Film Service, Wichita, Kans., has *Under Secret Orders,* six reel sound film of adventure. A new sound and silent list of films is available on request.

■ Nu-Art Filmco, New York City, has sound and silent films that are suitable for home, church and road show screenings. Catalogs will be sent on request.

■ Pathescope Co. of the North East, Inc., Boston, Mass., again offers the two instructional films on skiing, *Modern Ski Technique,* on two 400 ft. reels, and *Moosilauke Down-Mountain Race,* 300 ft. Both are on 16mm. silent film and they are for rent or for sale.

■ Ernest M. Reynolds, Cleveland, Ohio, offers scenic short subjects for sale; these come in 100 ft. lengths and cover well known scenic points in the United States.

■ United Film Libraries, New York City, has the sound on film subject, *The Night Before Christmas,* for sale. Rental subjects also are available.

■ Visual Instruction Supply Corp., Brooklyn, N. Y., has silent and sound on disc features for sale in addition to a sound on film rental library.

■ Y.M.C.A. Motion Picture Bureau, New York City and Chicago, Ill., has sound and silent features, shorts, cartoons and novelties available in 16mm.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF MARCH 3, 1933.

OF MOVIE MAKERS, published monthly at New York, N. Y., for October 1, 1936.
State of NewYork.
County of New York, ss.

Before me, a notary in and for the State and county aforesaid, personally appeared Arthur L. Gale, who, having been duly sworn according to law, deposes and says that he is the editor of MOVIE MAKERS and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Amateur Cinema League, Inc., 420 Lexington Avenue, New York, N. Y.; Editor, Arthur L. Gale, 420 Lexington Avenue, New York, N. Y.; Managing Editor, none; Business Managers, none.

2. That the owner is: Amateur Cinema League, Inc., 420 Lexington Avenue, New York, N. Y. Membership corporation with no capital stock. President, Stephen F. Voorhees, 101 Park Avenue, New York, N. Y.; Vice President, Lee F. Hanmer, 130 East 22nd Street, New York, N. Y.; Treasurer, Arthur A. Hebert, 410 Asylum Street, Hartford, Conn.; Secretary and Managing Director, Roy W. Winton, 420 Lexington Avenue, New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

ARTHUR L. GALE, Editor.

Sworn to and subscribed before me this 28th day of September, 1936. (My commission expires March 30, 1937.)

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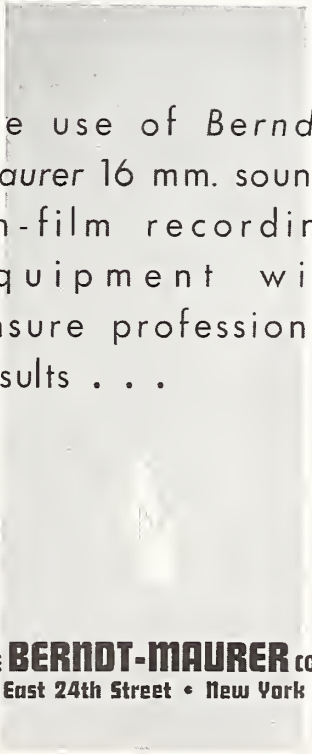
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(Continued from page 502)

Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Foster Book Co., 410 Washington Ave.
Rudi Drug Co., 4924 Hampton Blvd.
W. Schiller & Co., 6 S. Broadway.
Scruggs-Vandervoort-Barney Dry Goods Co., Dept. No. 551, Ninth to Tenth, Olive and Locust.

MONTANA

Butte: Al's Photo Shop, 42 N. Main St.

NEBRASKA

Lincoln: Eastman Kodak Stores, Inc., 1217 O St.
Lawlor Sporting Goods Co., Inc., 1118 O St.
Omaha: Eastman Kodak Stores, Inc., 1618 Harney St.
J. G. Kretschmer & Co., 1617 Harney St.
Sidney: Sidney Drug Co., 1001 Illinois St.
Tecumseh: Gamble Store Agency.

NEVADA

Reno: Skeels Drug Store, 2nd & Virginia Sts.
N. E. Wilson Co., Inc., Masonic Temple, North Virginia St.

NEW HAMPSHIRE

Claremont: Banister Studio, 10 Tremont St.
Lebanon: Kenneth L. Spring, 41 Hanover St.
Nashua: Nashua Optical Co., 202 Main St.
Newport: K. E. Waldron, 1 A Main St.

NEW JERSEY

Atlantic City: Eastman Kodak Stores, Inc. 1735-37 Boardwalk.
Bayonne: Marshall Music Shop, 428 Broadway.
Milton Mendelwager, 182 W. 49th St.
East Orange: H. C. Deuchler, 541 Main St.
Jersey City: Levy's Sport Shop, 149 Monticello Ave.
Lakewood: Dubes' Camera Service, 26 Linden St.
Morristown: Ajemian Camera Shop, 18 Park Pl.
Newark: Anspach Bros., 838 Broad St.
L. Bamberger & Co., Dept. 290.
Davega-City Radio, Inc., 60 Park Pl.
Firemen's Pharmacy Co., 765 Broad St.
GRUBER'S CAMERA EXCHANGE, 98 Academy St.
L. Kaltman & Sons, 303-05 Washington St.
J. C. Reiss, 10 Hill St.
Passaic: Rutblatt Sport Shop, Inc., 38 Lexington Ave.
Paterson: Walker Radio & Elec. Co., 318 E. 33rd St.
Princeton: Princeton University Store, On the Campus.
Trenton: Dwyer Bros., 127 N. Broad St.
Photo Art Co., Inc., 129 N. Warren St.
Stewart's School Films, 143 Hunter Ave.

NEW MEXICO

Albuquerque: Camera Shop of New Mexico, 414 E. Central Ave.
Compton Studio, 302½ W. Central Ave.
Carlsbad: Ray V. Davis.
Santa Fe: Capital Pharmacy, Inc., "At the End of the Santa Fe Trail."

NEW YORK

Albany: Albany Hardware & Iron Co., Broadway at Arch St.
F. E. Colwell Co., 465 Broadway.
George A. Young, 151 Central Ave.
Astoria: A. C. Camera Exchange, 34-01 Broadway.
Binghamton: Austin S. Bump Co., 180 Washington St.
L. F. Hamlin, Inc., Photo Supply Dept., 34 Court St.
Stickley's Photo Shop, cor. Hawley and Carroll Sts.
Brooklyn: Abraham & Straus, Inc., Dept. 290, Fulton and Hoyt Sts.
Amateur-Home-Movies, 194 Greenpoint Ave.
Alan Benjamin's Film Craft, 931 Flatbush Ave.
Camera Corner, Inc., 80 Willoughby St.
CINE CLASSIC LIBRARY, 1041 Jefferson Ave.
H. B. Kay, 40 Linden St.
Geo. J. McFadden, Inc., 202 Flatbush Ave.
E. B. Meyrowitz, Inc., 255 Livingston St.
PARK CINE LABORATORY, 1250-51st St.
Buffalo: J. F. Adams, Inc., 459 Washington St.
Hauser Bob, 11 W. Tupper St.
Buffalo Photo Material Co., 37 Niagara St.
Chippewa News & Novelty Shop, 19-21 W. Chippewa St.
United Projector & Film Corp., 228 Franklin St.
Flushing: Queens Camera Hospital, 136-14A Roosevelt Ave.
Glen Falls: M. Lapham's Sons, 186 Glen St.
Ithaca: Treman, King & Co., care of George E. Houghton.
Jamaica: Jamaica Camera Store, 8931-161st St.
New Rochelle: Camera Craft Shop, 673 Main St.
New York City: Aladdin Camera Exchange, 4 E. 32nd St.
American News Co. and its Subsidiaries, 131 Varick St.
Bloomingdale's, Dept. 290, Lexington Ave. at 59th St.
Broadway Camera Exchange, 1595 Broadway.
Camera House, Inc., 145 E. 60th St.
City Radio, 42 Cortlandt St.
Abe Cohen's Camera Exchange, 120 Fulton St.
Wm. C. Cullen, Inc., 12 Maiden Lane.
Davega, Inc., 111 E. 42nd St.
152 W. 42nd St.
Empire State Bldg.
Eastman Kodak Stores, Inc., 356 Madison Ave., at 45th St.
235 W. 23rd St.
745 Fifth Ave.
Dave Farley, News Stand, Times Bldg.
Fifth Avenue Film & Camera Co., 545 Fftth Ave.
Films Editorial Service. 1451 Broadway.
Finnish Book Concern, 27 E. 125th St.
H. & D. Folsom Arms Co., 314 Broadway.
Gall & Lembke, Inc., 7 E. 48th St.
Gillette Camera Stores, Inc., 117 Park Ave.
Joseph P. Hackel, 53 West 57th St.
Harry's Camera Exchange, Inc., 317 W. 50th St.
HENRY HERBERT, 483 Fifth Ave.
Charles H. Huesgen & Sons, 22 E. 42nd St.
Lugene, Inc., Optician, Main Store, 600 Madison Ave., bet. 57th and 58th Sts.
Luma Camera Service, Inc.. 330 W. 42nd St.
MADISON MART, 403 Madison Ave.
Medo Photo Supply Corp., 15 W. 47th St.
Meta Photo Supply Co., 126 Liberty St.
E. B. Meyrowitz, Inc., 520 Fifth Ave.
Henry Mielke, Inc., 242 E. 86th St.
MOTION PICTURE CAMERA SUPPLY, INC., 723 Seventh Ave.
New York Camera Exchange, 109 Fulton St.
Newman's Camera Exchange, 1192 Sixth Ave.
Parker and Battersby, 46 W. 50th St.
RAB SONS, 1373 Sixth Ave.
Rubin's Film Exchange, 11 Essex St.
Snapshot Stores, Inc., 108 W. 40th St.
Frank Tanham & Co., Inc., 9 Church St.
John Wanamaker, Inc., Section 156, Broadway at 9th St.
WILLOUGHBYS, 110 W. 32nd St.
WORLD FILM ENTERPRISES, Film Center Bldg., 630 Ninth Ave.
Newburgh: Baxter Pharmacy, 486 Broadway.
Niagara Falls: Croy's Drug Store, 7 Falls St.
Pelham: Kolb & Crawford, 129 Wolf's Lane.
Port Chester: John F. Mowbray, Capitol Theatre Bldg.
Rochester: Bourbon Film Library, 387 Magee Ave.
Cramer Drug Co., Inc., 1286 Dewey Ave.
Marks & Fuller Co., 44 East Ave.
Paine Drug Co., 28 E. Main St.
Sibley, Lindsay & Curr Co., Kodak Dept.
Rome: Jewell Studio, 174 W. Dominick St.
Schenectady: J. T. and D. B. Lyon, 236 State St.
Syracuse: Francis Hendricks Co., Inc., 339 S. Warren St.
Geo. F. Lindemer, 443 S. Salina St.
Troy: Knowlsons, Inc., 350 Broadway.
Utica: Carl K. Frey, 247 Genesee St.
Edwin A. Hahn, 223 Columbia St.
Yonkers: W. J. Dolega, 242 Nepperhan Ave.

NORTH CAROLINA

Charlotte: W. I. Van Ness & Co., 213 N. Tryon St.
Winston-Salem: Clio News Co., 12 E. Fourth St.

OHIO

Akron: Buckeye Cycle Co., 65 E. Mill St.
Metzger Photo Supply Co., 1091 S. Main St.
Metzger's Photo-Art Store, 39 E. Main St.
News Exchange, 29 So. Main St.
M. O'Neil Co., Dept. 19, 51 Main St.
Pockrandt Photo Supply Co., 16 N. Howard St.
Barberton: Wyre's Pharmacy, 220 Second St., N. W.
Canton: Camera Shop, 531 Market Ave. N.
Cincinnati: Eastman Kodak Stores, Inc., 27 W. Fourth St.
Huber Art Co., 124 Seventh St. W.
L. M. Prince Co., 108 W. Fourth St.
Cleveland: Dodd Co., 1020 Huron Rd.
Eastman Kodak Stores, Inc., 806 Huron Rd.
1862 E. Sixth St.
915 Euclid Ave.
Escar Motion Picture Service, Inc., 10008 Carnegie Ave.
G. B. Cine Service, 1771 E. 12th St.
Halle Bros. Co., Camera Dept., 1228 Euclid Ave.
Higbee Co., Dept. 90, Public Square.
Home Movies Studio, Inc., 2025 Euclid Ave.
Z. W. Koby Photo Supply Co., 3240 Superior Ave. at E. 33rd St.
Marshall Drug Co., W. Ninth & Lakeside Ave.
Columbus: Capitol Camera Co., 7 E. Gay St.
Columbus Photo Supply, 62 E. Gay St.
Don McAlister Camera Co., 73 E. State St.
Dayton: Dayton Camera Shop, 1 Third St. Arcade.
Fremont: Geo. H. Grob—Camera Shop, 218 Justice St.
Lima: Acme Cine Service, 1204 W. Market St.
Middletown: The Book Shop, 1012 Central Ave.
Portsmouth: V. E. Fowler, 824 Gallia St.
Harold E. Monroe, 802 Waller St.
Steubenville: Beall & Steele Drug Co., 424 Market St.
Toledo: Franklin Printing & Engraving Co., 226-236 Huron St.
Gross Photo Supply Co., 325 Superior St.
Sand Beach Consolidated Corp., 823 Board of Trade Bldg.
Youngstown: Eastman Kodak Stores, Inc., 7 Wick Ave.
Home & School Movies, 177 Benita Ave.
Zanesville: Zulandt's Drug Store, Widney, cor. Seventh & Main.

OKLAHOMA

Enid: Sanford-Frazier-Stunkle Drug Co., cor. Monroe & Market Sts.
Oklahoma City: H. O. Davis, 522 N. Broadway.
Reeves Camera Store, Perrine Bldg. Lobby.
Veazey Drug Co., 135-7 W. Main St.
Tulsa: Camera Shoppe, Inc., 1213 S. Boulder Ave.
Alvin C. Krupnick Photo Supply Co., Philcade Bldg.
Rochester Camera Stores Co., 101 E. 4th St.

OREGON

Lakeview: Getty's Photo Studio, 536 G. St., So.
Pendleton: Snelson's Camera Shop, 817 Main St.
Portlann: Eastman Kodak Stores, Inc., 709 S. W. Washington St.
Meier & Frank Co., Kodak Dept., Fifth, Sixth, Morrison & Alder Sts.
Sherman, Clay & Co., 817 S. W. Alder.
West Coast Film Productions & Camera Exchange, 311-312 Gerlinger Bldg.

PENNSYLVANIA

Allentown: M. S. Young & Co., Bell & Howell, Pathex Rep., 736-40 Hamilton St.
Bethlehem: Dennis Photo Service Co., 49 W. Broad St.
Easton: Easton Sporting Goods Co., Second and Northampton St.
Erie: Kelly Studios, 1026 Peach St.
Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
Johnstown: Johnstown News Co., 115 Market St.
Ernest M. Pollas Motion Picture Equipt., 702 Railroad St.
New Castle: Charles T. Metzler Co., 22 N. Mill St.
Norristown: Hunsicker's News Agency, 731 Noble St.
Wilson Photo Service, 615 W. Marshall St.
Philadelphia: Camera Shop, 113 S. 52nd St.
Eastman Kodak Stores, Inc., 1020 Chestnut St., 117 S. 16th St.
H & R Camera Exchange. 438 Market St.
Klein & Goodman, 18 S. 10th St.
M & H Sporting Goods Co., 512 Market St.
MacCallum Stores, 1600 Sansom St.
News Reel Laboratory, 1707 Sansom St.
Seaboard Camera Stores, Inc., 222 S. 15th St.
John Wanamaker, Dept. 546.
Williams, Brown & Earle, Inc., 918 Chestnut St.
Pittsburgh: Eastman Kodak Stores, Inc., 606 Wood St.
B. K. Elliott & Co., 126 Sixth St.
Joseph Horne Co., Magazine Dept.
Kaufmann Dept. Store, Inc., Dept. 62, Fifth Ave.
Penn Camera & Photo Supply, 927 Liberty Ave.
Wolk's Kamera Exchange, 306 Diamond St.
Reading: Alton E. Bowers. 416 N. Fifth St.
W. F. Drehs, 541 Court St.
Nuebling's, Inc., 847-849 Penn St.
Scranton: Wallace & Cook, Inc., 205 N. Washington Ave.

RHODE ISLAND

Pawtucket: J. E. Brennan & Co., 5 N. Union St.,
Thomas N. Simpson, Broadway and Exchange St.
Providence: E. P. Anthony, Inc., 178 Angell St.
Metropolitan Photo Supply Co., 33 Aborn St.
Samson's, 35 Portland St.
Starkweather & Williams, Inc., 47 Exchange Pl.
Westcott, Slade & Balcom Co., 95-99 Empire St.
Westerly: Vars Bros., 8-10 High St.

TENNESSEE

Knoxville: The Snap Shop, Inc., 615 S. Gay St.
Memphis: Memphis Photo Supply Co., 6 N. Main St.
Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

TEXAS

Dallas: E. G. Marlow Co., 1610 Main St.
Sanger Bros., Inc., Dept. 36.
El Paso: Don Thompson, Inc., Bassett Tower.
Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

VERMONT

Burlington: G. W. La Pierre's, 71 Church St.

VIRGINIA

Bristol: Kelly & Green.
McGaheysville: Cine Picture Service, East River Drive.
Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
G. L. Hall Optical Co., 418 E. Grace St.
Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

WASHINGTON

Pullman: C. E. Graves.
Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores. Inc., 1415 Fourth Ave.
Lowman & Hanford, 1512 Second Ave.
Motion Picture Service, 1711 Ravenna Bld.
Sherman, Clay & Co., 1624 Fourth Ave.
Skykomish: Palm Drug Store.
Spokane: John W. Graham & Co., Dept. C, 707-11 Sprague Ave.
Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

WEST VIRGINIA

Charleston: Camera Shop and Photo Supply, 110-A McFarland St.
Huntington: Honaker Book & News Co., 418 Ninth St.

WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
Fond du Lac: Huber Bros., 36 S. Main St.
Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & Fourth St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
232 W. Wisconsin Ave.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., Third and Garfield.
12th and Vliet.
11th and Mitchell.

WYOMING

Worland: Worland Drug Co.

UNITED STATES TERRITORIES

HAWAII

Honolulu: Eastman Kodak Stores, 1059 Fort St.
Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSION

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Cia. Sud America Foto-Cine-Optica, Corrientes 624.
Rosario de Santa Fe: Enrique Schellhas e Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
Harringtons, Ltd., 386 George St.
Kinelab Film Service, Adams' Bldg., 484 George St.
Kodak (Australasia) Pty., Ltd., 379 George St.
Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
Kodak (Australasia) Pty., Ltd., 252 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
J. Van Dooren, 27 Rue Lebeau.

BRAZIL

Sao Paulo: Fotoptica, Casa Dos Amadores, Rua Sao Bento 49.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Toronto: Associated Screen News, Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
Frank P. Boyce, 192 Sunnyside Ave.
Eastman Kodak Stores, Ltd., 66 King St., W.
T. Eaton Co., Ltd., Dept. D30, 190 Yonge St.
Screen & Sound Service, Ltd., 156 King St., W.
Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
H. de Lanauze, 1027 Bleury St.
Eastman Kodak Stores, Ltd., 286 Craig St. W.
Gladwish & Mitchell, Dominion Square Bldg.
Metropolitan News Agency, 1248 Peel St.
Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
STREET PHOTO SUPPLY CO., **1479 St.** Catherine St., W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
Chiyo Yoko Photo Supplies, 80 Nanking Rd.
Eastman Kodak Co., 185 Yuen Ming Yuen Rd.
Standard Photo Supply Co., 445 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
Budtz-Mullers Eftf. A/S, Bredgade 29.
Kongsbak and Cohn, Vimmelskaftet 43.
V: Kodak Aktieselskab, Ostergade 1.
S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Arts Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Birmingham: Harrisons—Opticians, 86 Worcester St.
Blackburn: Edwin Gorse. 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Leeds 1: Pearson & Denham (Photo), Ltd., 6 Bond St.
Liverpool: Kodak, Ltd., 70 Lord St.
J. Lizars, 71 Bold St.
London: E. C.: Camera Co., 52 Cheapside.
City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
59 Cheapside.
Horne's Camera Mart, 58 Old Broad St.
E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
Horne's Camera Mart, 32 Gracechurch St.
E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
R. E. Schneider, Keystone Distribution Dept., 46 Farringdon St.
N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
Kodak, Ltd., 96 Victoria St.
Westminster Photographic Exchange, Ltd., 119 Victoria St.
W. C. 1: Ensign, Ltd., Ensign House, 88-89 High Holborn.
Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
W. C. 2: Kodak, Ltd., Kingsway.
Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
81 Strand.
W. 1: Bell & Howell Co., Ltd., 13 & 14 Great Castle St., Oxford Circus.
J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
Westminster Photographic Exchange, Ltd., 111 Oxford St.
W. 8.: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leek.

FINLAND

Helsinki: Aurora Filmi, Yrjonkatu 17A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell, Sub-Agent), 25 Quai Tilsitt.
Kodak Pathe S. A. F., 26 rue de la Republique.
Marseilles: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Establs. J. ChOtard, 20-22 rue Bobillot.
American Photo Service, 59 rue de Chateaudun.
M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
84 rue des Petits Champs.
Brentano's, 37 Avenue de l'Opera.
le Grimoire, 182 Blvd. Berthier.
Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
9 Blvd. des Italiens.
39 Avenue Montaigne.
5 Avenue de l'Opera.
41 Blvd. Raspail.
28 Place Vendome.
Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
Kodak-N. V., Anna Paulownastraat 76.
Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka" Admiraliteitsstr. 4-8.

HUNGARY

Budapest VII: Hafa, Hatschek Es Farkas, Cine Dept., Rakoczi ut 80.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
Photographic Stores & Agency Co., 154 Dharamtala St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
Branch No. 1: Juarez Ave. No. 66.
Branch No. 2: 16 Septiembre No. 2.
Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S. A. F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
J. L. Nerlein, A/S, Nedre Slotsgate 13.

PANAMA

Panama City: Kodak Panama Ltd., 111 Central Ave.
Lewis Service, Inc., 124 Central Ave.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
Kodak, Ltd., 46 Buchanan St.
J. Lizars, 101 Buchanan St., C. 1.
381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A.. Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
Kodak, Ltd., 130 Robinson Rd.
Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: A. B. Nordiska Kompaniet, Photographic Dept., Hamngatan 18-20.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
Gimmi & Co.. Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

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This thrilling tale of the Mojave Desert and its bad men will hold your interest through sheer excitement. The hero is accused of a murder he did not commit, and is himself almost murdered by the girl he loves. A great many brawls and gun-fights, and much hard riding are necessary before he vindicates himself. Two lovely girls have leading roles—Lina Basquette, as the murdered rancher's daughter, and Nena Quartaro, as the Mexican bandit's sweetheart, complicating matters with her vamp tactics. Ken Maynard gives his usual effective performance and Tarzan has a chance to show off his new trick of buck-jumping an unwelcome rider. Six-reels. Talking Pictures.

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A boy fishing with a diving cormorant rescues a geisha girl from a watery grave after she has fallen in near his boat, when she attempted to catch a butterfly. In chasing the butterfly for her he disturbs the old Mandarin who threatens their lives.

They make their escape, with him in pursuit, and take cover near a cave in what appears to be a mountain. The Mandarin rushes into the cave which turns out to be a dragon's mouth and the mountain the dragon.

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■ UTILITY 16mm. Film Printers; capacity up to 400 feet; perfect contact; exceptional bargains; limited number left at $19.50 each. Order yours now or write; money returned if not satisfied after 10 days' trial. FROMADER PHOTO SERVICE, Davenport, Iowa.

■ GOOD USED EQUIPMENT. Projectors: Leica 300 watt slidefilm projector, complete, $50.00; Eastman, Model D, 16mm. (400 W.), $40.00; DeVry Model G, 16mm., $15.00; Eastman Kodascope A, $25.00; B & H (old style) continuous—attachment, $15.00; DeVry, Type E, 35mm., $25.00. Cameras: Eastman B, *f*/1.9, $45.00; Eastman K, *f*/3.5 (brand new), $70.00; Simplex Pockette C.C., *f*/1.9, with case (brand new), $75.00. Camera lens: 1" *f*/1.8 Cooke lens for B & H camera, $30.00; 1" *f*/3.5 Cooke lens with Mic. Foc. Mt., $15.00. METROPOLITAN MOTION PICTURE CO., 1745 E. Grand Blvd., Detroit, Mich.

■ IF you have a Cine-Kodak K, *f*/1.9 lens and case in excellent condition, will take same and $40.00 additional in cash and ship you the new EASTMAN MAGAZINE LOADING CINE-KODAK with *f*/1.9 lens. List $125.00—brand new direct from factory stock. SUNNY SCHICK, National Brokers, Fort Wayne, Ind.

■ FILMO 70D with Cooke *f*/1.5, 1" lens, C case, like new, $140.00; VICTOR Model 5 with Cooke *f*/1.8, 1" lens & case, like new, $120.00; Cooke 6" *f*/4.5, C mount telephoto lens, like new, $65.00; Cooke 2" *f*/3.5, C mount lens, like new, $30.00; Cine-Kodak EIGHT w. *f*/1.9 lens & case, European model, like new, rare, $42.50; H. Meyer Plasmat 3" *f*/1.5, C mount, rare bargain, brand new, $110.00; B. & H PHOTOMETER, like new, $3.00; B & H Enlarger for Model 57 projector, $12.00; Badgley Automatic Dissolve, $15.00; Correctoscope with lens, new, list $45.00, $20.00. COLUMBUS PHOTO SUPPLY, 146 Columbus Ave., New York City.

■ BARGAINS in demonstrators, Keystone projectors A-81, A-75, 10% discount, all like new. Model 5 Victor camera, *f*/3.5 Velostigmat, $125.00; Keystone A-7 with *f*/2.7, $37.50; Weston exposure meters, $17.95; 30x40 beaded screens, $4.95; ten End titles, $1.00. ALFRED C. SMITH, 5101 Yorkshire Rd., Detroit, Mich.

■ FULL LIST PRICE ALLOWANCE of $34.50 for your Model 20 8mm. Cine-Kodak toward the purchase of a new 8mm. Bell & Howell straight or double eight camera, or Model 60 Eastman Cine-Kodak. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 S. Fifth St., Minneapolis, Minn.

■ PROJECTORS: 16mm. and 8mm. silent Filmos taken in on new Filmos and sound projectors, all machines rebuilt by factory and fully guaranteed; write for list. 8mm. slitter, $4.50; Cine Nizo double eight camera, cost $85.00, price $50.00; 300 watt Keystone, case, $15.00; 100 watt Model "C" Kodascope, $12.50; Rhamstine film editor, $15.00; new RCA sound camera, reasonable; double perforated 16mm. positive for 8mm. title work, includes later free development and slitting, 25 foot roll, each $1.00 (plus sales tax in Ohio). J. C. HAILE & SONS, 215 Walnut St., Cincinnati, Ohio.

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■ IT'S FREE! Literature on real bargains describing 8mm. and 16mm. movie equipment. Write Now! ELDER COMPANY, Dept. MN-10, Chelsea, Mass.

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■ HIGH FIDELITY Jensen Speaker for any sound projector, tradein allowance on your old speaker. CLYDE CRORK, 1239 Summer St., Philadelphia, Pa.

■ EDITOLA—THE 16MM PROFESSIONAL EDITING MACHINE; silent, $95.00; sound, including amplifier and speaker, $360.00 and up. M. W. PALMER, 468 Riverside Dr., New York City.

■ CINE-KODAK BB (50 ft. capacity), *f*/1.9, with case, excellent condition, $40.00. BOX 200, MOVIE MAKERS.

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EQUIPMENT WANTED

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK, National Broker, 402 W. Washington, Fort Wayne, Ind.

■ WANTED: 16mm. Library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

FILMS FOR RENTAL OR SALE

■ 8 AND 16mm. films, Popeye, Betty Boop, Hal Roach "Our Gang" comedies and many other subjects. Catalogue free. EXCEL HOME MOVIES, 622 Madison Ave., Toledo, Ohio.

■ 8MM., 16MM., CARTOONS: Popeye, Mickey Mouse, Betty Boop, others. List free; state width. LINCOLN FILM SERVICE, Box 293-H, Saginaw, Mich.

■ LOOK! "The World's Greatest Passion Play"; seven reels, (new) 16mm. Superior than the Oberammergau stage play; rent or purchase. Write HEMENWAY FILM CO., 37 Church St., Boston, Mass.

■ 16MM. silent features and shorts for rent or sale; write for list R. of subjects. MOORFIELD-SHANNON, Nutley, N. J.

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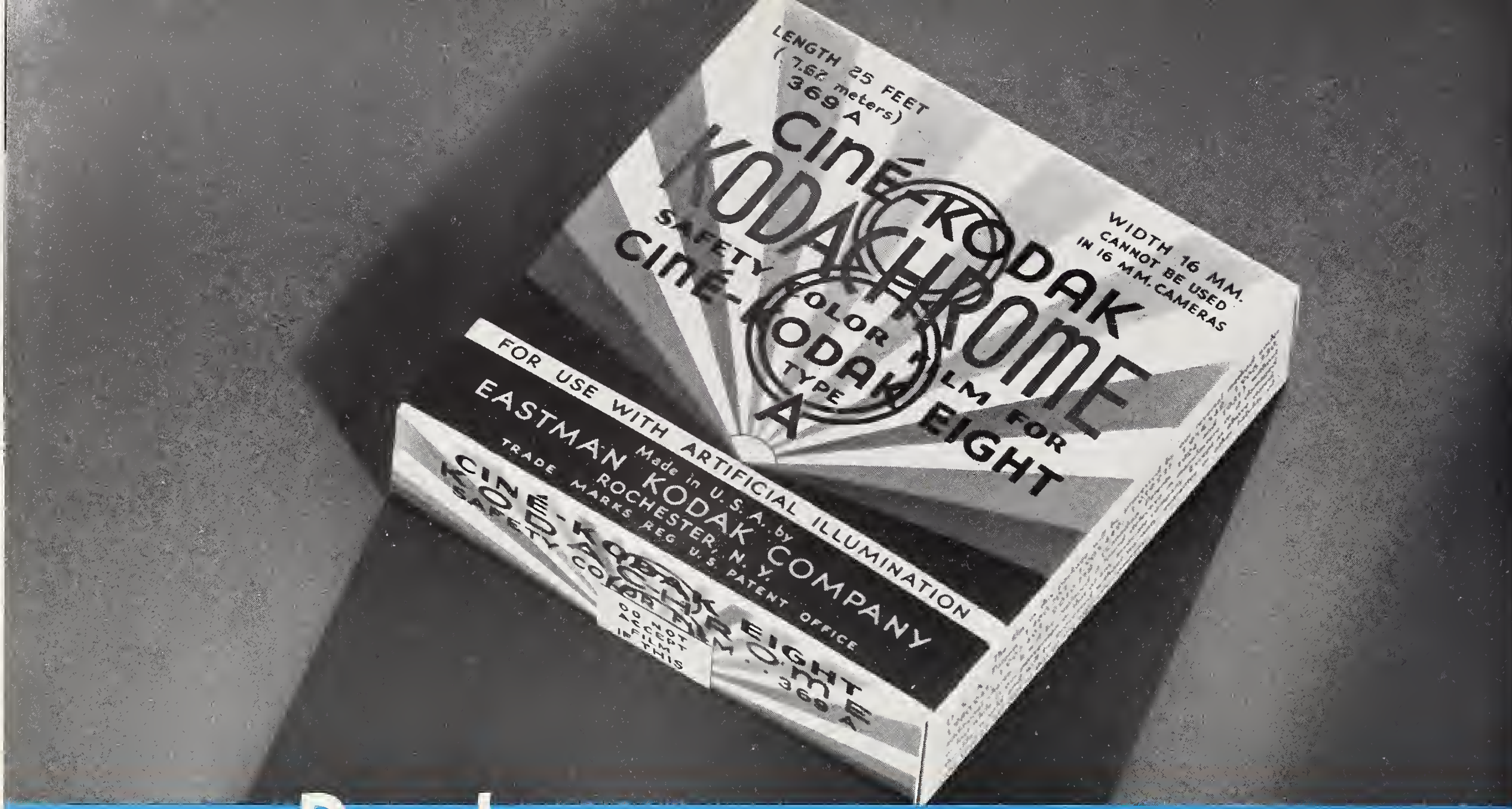

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NOW EVERY ONE CAN MAKE FULL-COLOR INDOOR MOVIES

Just in time for the indoor season—a Type A Kodachrome for Ciné-Kodaks Eight. Color-balanced for the specific type of light supplied by Mazda Photofloods in Eastman's $5 Kodaflector, it requires no filters. Hence, it is far faster indoors than regular Kodachrome.

No longer is it necessary to work up close with either lights or camera. No longer need subjects be posed directly before the beams of a reflector. "Corner" shots give way to full view shots in any average size room, with any camera. Users of *f*.3.5 "Eights," as well as those using cameras equipped with *f*.1.9 lenses, are now free to capture any and every worth while indoor subject in colors of startling realism.

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With the inexpensive Type A Kodachrome Filter for Daylight before the camera's lens to correct the film for use under natural light, this new film provides an ideal medium for outdoor work.

Stock up...*now*...with Kodachrome, Type A, for the indoor and outdoor movies you will want to make over the holidays. It is priced at $3.75 per roll—including processing.

EASTMAN KODAK COMPANY, ROCHESTER, N. Y.

MOVIE MAKERS

Magazine of the Amateur Cinema League, Inc.

Tenth Anniversary Number

DECEMBER, 1936

25c

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■ SELECTED 16mm. library films in excellent condition at 20 to 60 per cent discount; also bargains in equipment. J. B. HADAWAY, Swampscott, Mass.

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■ HIGH FIDELITY Jensen Speaker for any sound projector, tradein allowance on your old speaker. CLYDE CRORK, 1239 Summer St., Philadelphia, Pa.

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■ 8MM. BARGAIN: Cine-Kodak Model 60, *f*/1.9, with case; condition practically new, $60.00. BOX 201, MOVIE MAKERS.

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■ BOOKS for movie makers: "Movie Making Made Easy" 50c; "Money Saving Tips for Amateurs" 25c; "How to Make Money With Movie Outfit" 15c; "Camera Trails Through Southwest" 75c. Films. equipment for sale. MOORFIELD-SHANNON, Nutley, N. J.

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■ BARGAINS in Keystone projectors; A-81, A-75, A-72, 20% discount; guaranteed like new; 35mm. Cello projector, cost $375.00, sell $49.50. Keystone A-7 cameras with *f*/2.7, $35.00; Model 650 Weston exposure meters, $17.95; 30x40 beaded screens, $4.95. All supplies for the cinematographer; trade in your old equipment. ALFRED C. SMITH, 5101 Yorkshire Rd., Detroit, Mich.

■ 8MM. camera, $9.95; projector, $12.50; send for circular of this sensational movie camera offer We sell, trade, buy 8mm., 16mm., cameras, projectors, films. Send for our latest bargain lists; big discounts on slightly used equipment. We make titles; send for big list. BLCAMEX, 1451-m Broadway, New York.

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■ RECONDITIONED SOUND projectors RCA 38. 60, 71. Ampro and Victors specially priced for this month's clearance. C. J. KUNZ, 1239 Summer St., Philadelphia, Pa.

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■ EASTMAN CINE-KODAK SPECIAL, cannot be told from brand new, latest model, $305.00; 70-D Bell & Howell, bronze finish, five lenses, priced at $245.00 with case; fifty-five dollars and your Model B Cine-Kodak *f*/1.9 will buy a new Magazine Cine-Kodak; very liberal allowance for your present projector on a new Bell & Howell FILMOSOUND, now only $450.00; it will pay you to write us for quotations and trade-in allowances before purchasing any new equipment. NATIONAL CAMERA EXCHANGE, Established in 1914, 5 S. Fifth St., Minneapolis, Minn.

EQUIPMENT WANTED

■ WANTED: 16mm. Library films, "silent and sound on film," any quantity, lenses, etc. J. B. HADAWAY, Swampscott, Mass.

■ WE pay the highest cash prices for any 8mm. or 16mm. cameras and projectors; lenses bought also; write at once, describe fully. SUNNY SCHICK, National Broker, 402 W. Washington, Fort Wayne, Ind.

■ WANTED: Cine-Kodak Special. Victor No. 3 camera and accessories for sale. MR. BALTZLY, 1711 Riverside Ave., Muncie, Ind.

FILMS FOR RENTAL OR SALE

■ 8MM., 16MM., CARTOONS: Popeye, Mickey Mouse, Betty Boop, others. List free; state width. LINCOLN FILM SERVICE, Box 293-H, Saginaw, Mich.

■ 8 AND 16mm. films, Popeye, Betty Boop, Hal Roach "Our Gang" comedies and many other subjects. Catalogue free. EXCEL HOME MOVIES, 622 Madison Ave., Toledo, Ohio.

■ LOOK! "The World's Greatest Passion Play"; seven reels, (new) 16mm. Superior than the Oberammergau stage play; rent or purchase. Write HEMENWAY FILM CO., 37 Church St., Boston, Mass.

■ 16MM. silent films for rent; films, cameras, projectors and accessories for sale; write for lists; we buy films and equipment. DELAWARE AMATEUR MOTION PICTURE SALES, P. O. Box 821, Wilmington, Del.

■ 1,000 BRAND NEW 100 ft. 16mm. film subjects, $1.95 each; 8mm. subjects, 50 ft., $1.75. FORD MOVIE COMPANY, 1659 Ford Ave., Detroit, Mich.

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FILMS FOR EXCHANGE

■ EXCHANGE—If you have high grade silent 400′ subjects, we will exchange same for our pictures of equal quality for $1.00 per reel. FOR SIX YEARS we have been trading and giving extreme satisfaction. Our sound on film high grade features and shorts are for rent, exchange and sale. Catalogues available. CINE CLASSIC LIBRARY, 1041 Jefferson Ave., Brooklyn, N. Y.

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■ 16MM. Printed Titles, eight words or less, 25c; each additional word, 3c. Samples free. MIDWEST SERVICE, 1024 Quincy, Topeka, Kans.

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88-96 GOLD STREET
NEW YORK, N.Y.

MOVIE MAKERS

Philip D. Gendreau

The magazine of the Amateur Cinema League, Inc.

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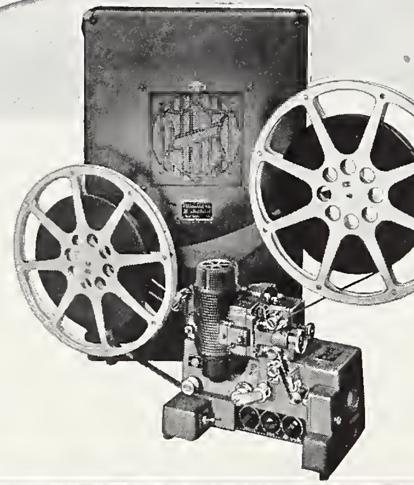

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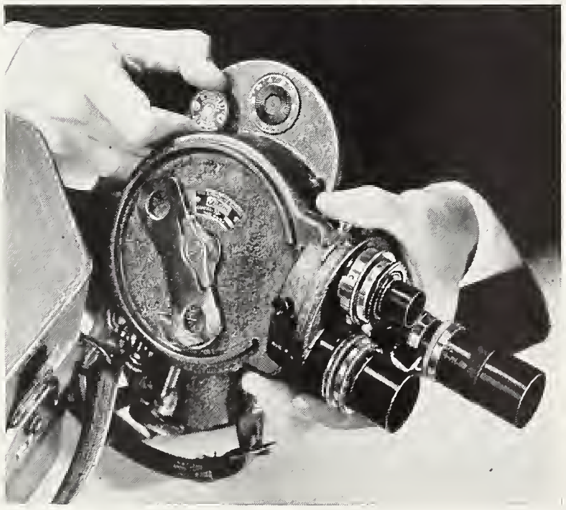

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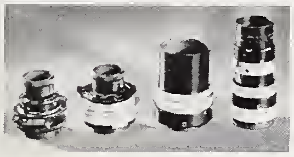

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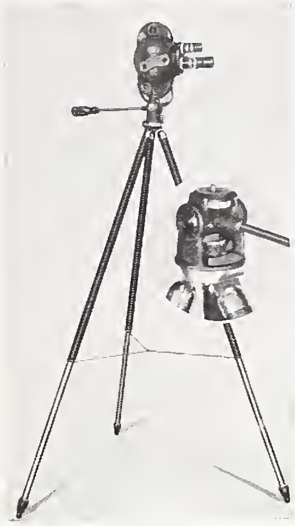

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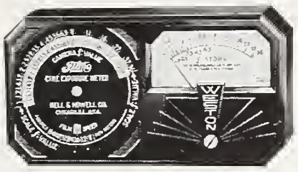

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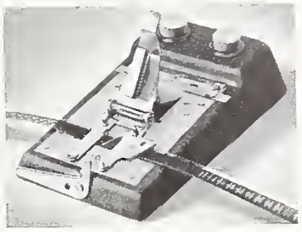

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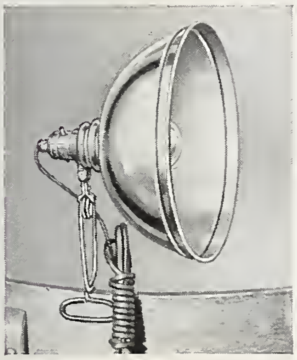

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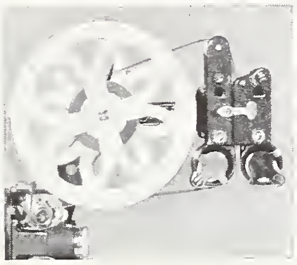

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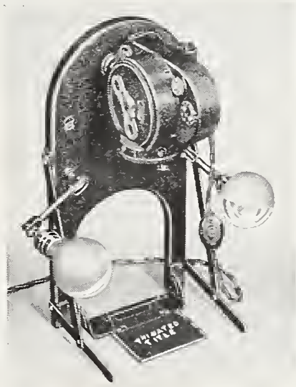

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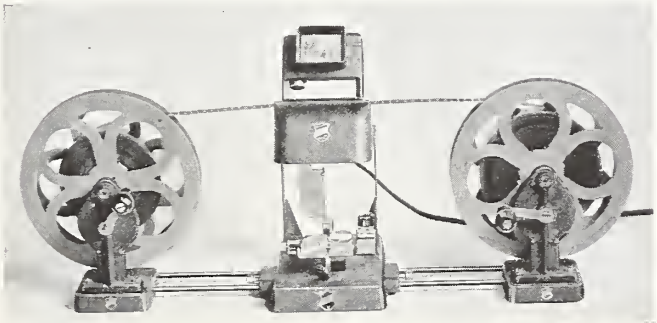

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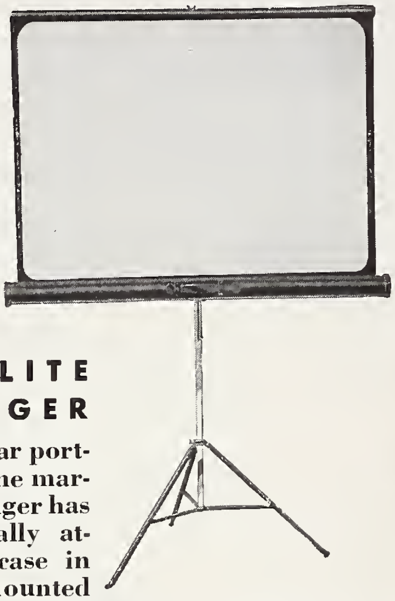

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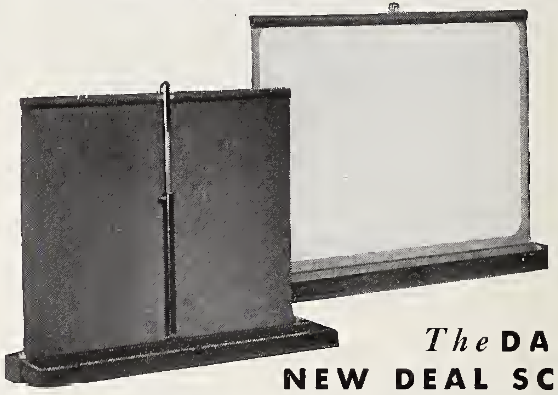

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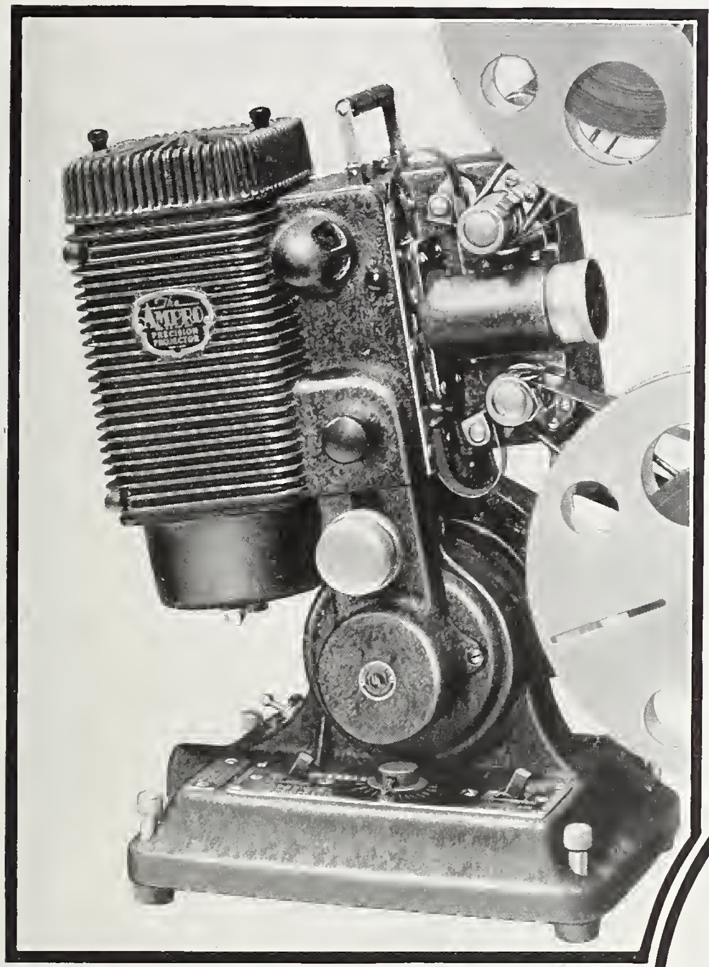

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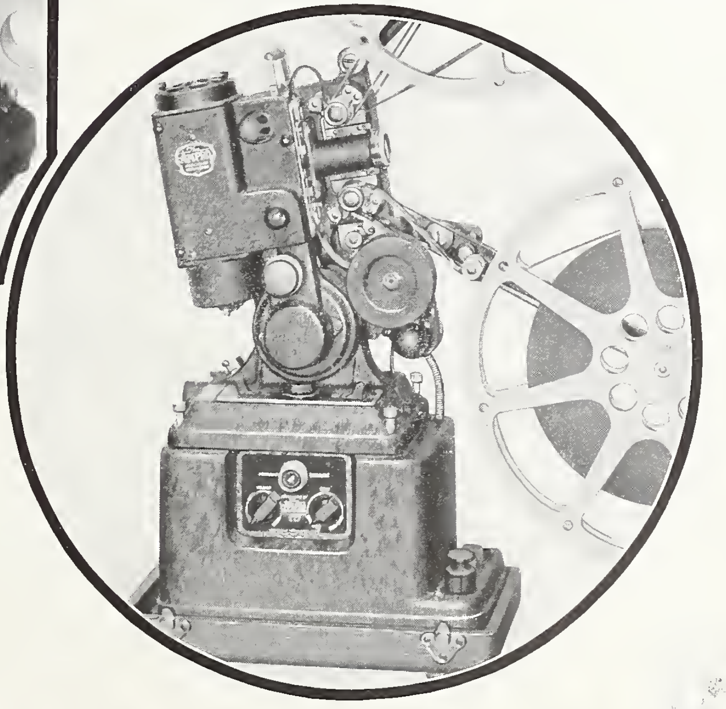

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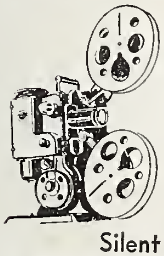

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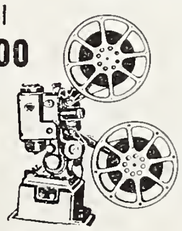

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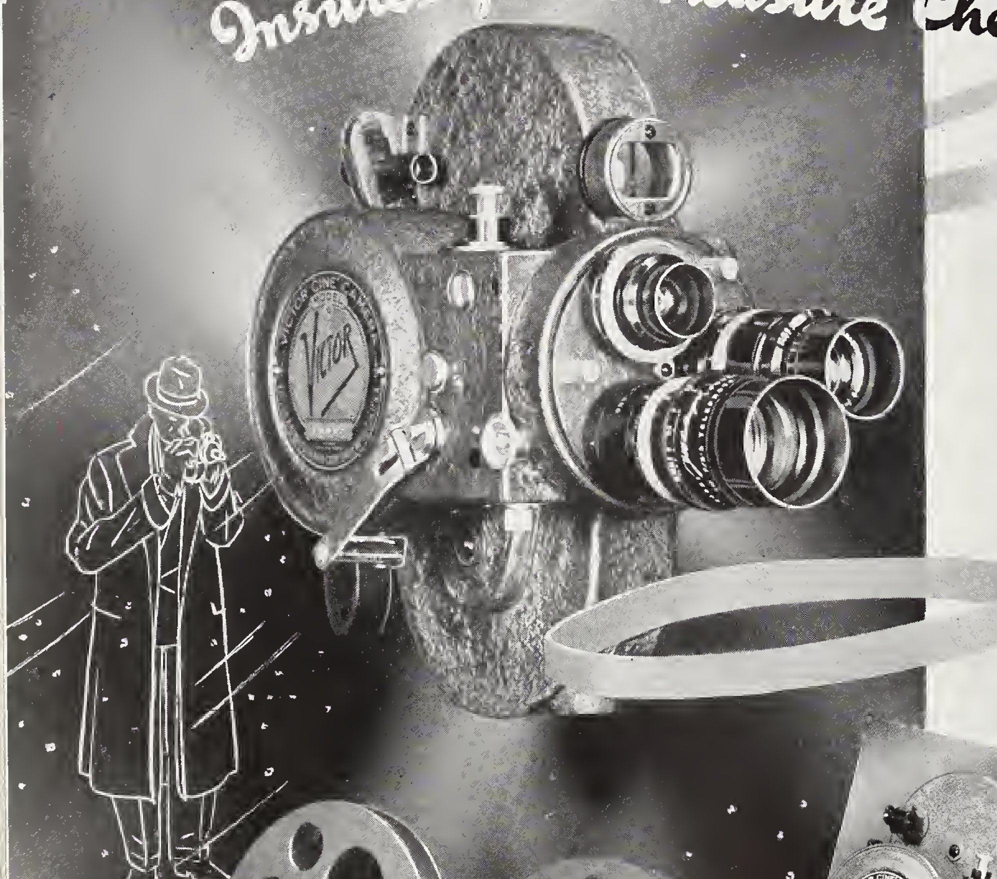

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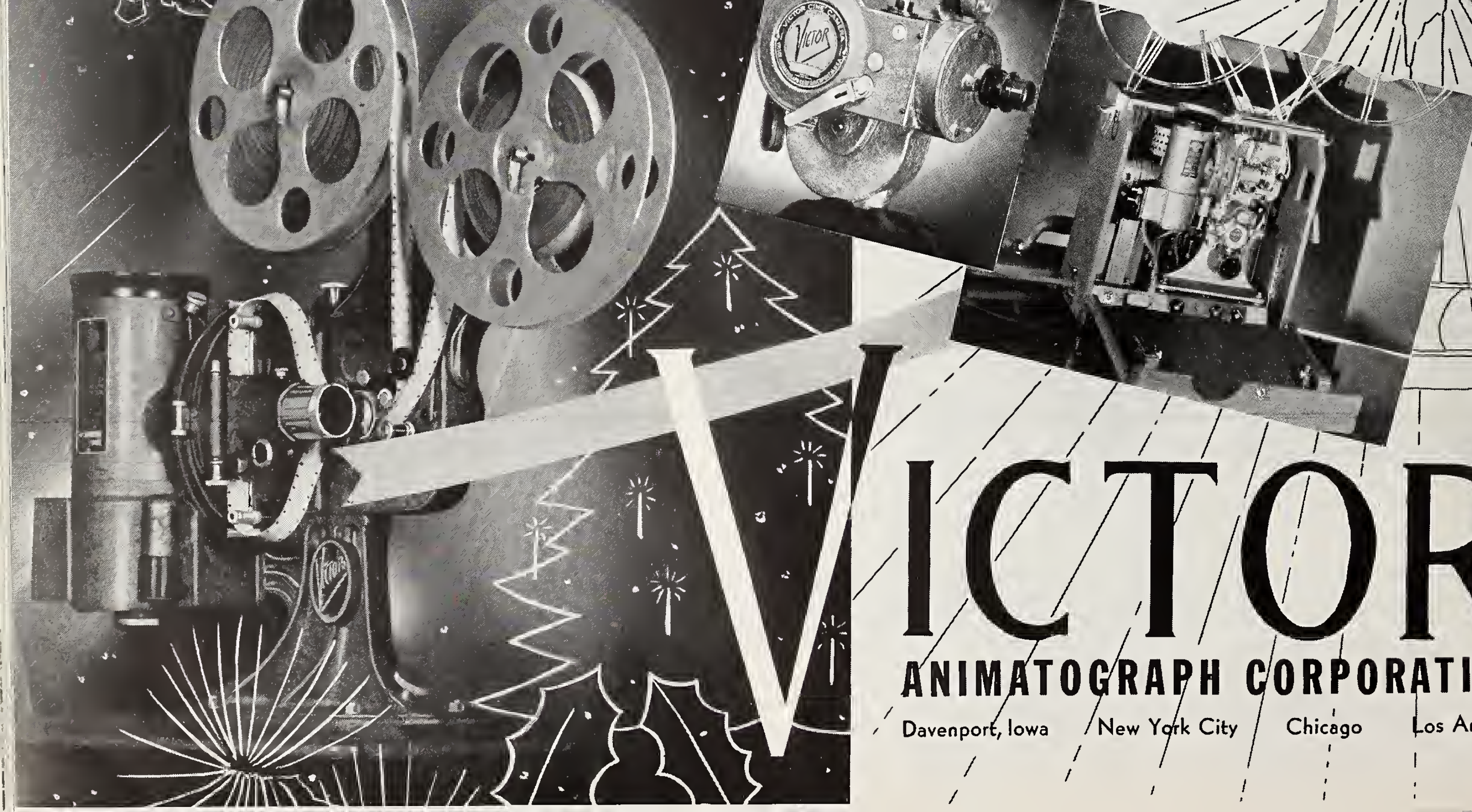

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The AMATEUR CINEMA LEAGUE, Inc.

whose voice is Movie Makers, *is the international organization of movie amateurs, founded in 1926 and now spreading over many countries. The League's consulting services advise amateurs on plan and execution of their films, both as to photographic technique and continuity. It serves the amateur clubs of the world in organization, conduct and program and maintains for them a film exchange. It issues bulletins. It maintains a plot service and title service. The League completely owns and operates* Movie Makers. *The directors listed below are a sufficient warrant of the high type of our association. Your membership is invited. Five dollars a year.*

Hiram Percy Maxim, Founder

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AMATEUR CINEMA LEAGUE, INC.
420 LEXINGTON AVE., NEW YORK CITY, U. S. A.

From our President

GOOD customs should be kept up. Beginning with the first anniversary number of Movie Makers, in December, 1927, our Founder, Hiram Percy Maxim, sent an annual greeting to League members on this editorial page, in each Christmas number of our magazine. Such a pleasant custom ought not to fall into disuse.

This year of 1936, we have thought much of anniversaries. The actual birthday of the League is July 28, because our organization came into being on that date in 1926. The first number of the League's magazine appeared in December, 1926. In October of this year, these two anniversaries were celebrated jointly by a gathering of four hundred League members in New York City. For the first time, our membership came together in large enough numbers so that we could take stock of each other face to face. We went away secure in the knowledge that, when League members are encountered, men and women are met who have intelligence and poise. The cross section at this birthday party was of fine quality, giving evidence of an exceptional type of membership everywhere.

No organization is better than its membership. With a superior membership, no organization can come to real misfortune, because a superior membership is a vigilant membership. Those of us who have been entrusted with the management of the affairs of the Amateur Cinema League hope that the League's members are satisfied with our stewardship, but we want you all to know that we look continually to you for new ideas and that we think the League will be what you make it and not what we make it. Its very essence is a mutual give and take, in which every member should play a part by keeping in touch with headquarters.

Everywhere in the world, men are experimenting with new methods and are following new trails. Those of us who have faith in the common sense of the common peope believe that from these experiments will come a new technique of living. It will neither accept all the novel nor reject all the familiar. It will be made up of both. The movie makers of the earth have, for more than a decade, been trail blazers, because they have been dealing with a new technique of human expression. They should be exceptionally well fitted to take part in the larger task of working out new ways of life. They have caught the tempo of the pioneer.

This pioneer's mind, which is the ACL's, is something I hope we shall never lose. So long as we keep it, we shall go forward insistently, for that is the way of pioneers, but also practically, for that is, again, the way of pioneers. In the world that is so clearly being made into something different to what it used to be, our Amateur Cinema League can face the future confidently, because it has learned how to experiment, without forgetting how to criticize its own attempts, to move forward, without abandoning its road maps, and to consolidate its gains, as it goes along.

Such a policy means success.

A scenario film, 1922
Marion Gleason and Harris B. Tuttle

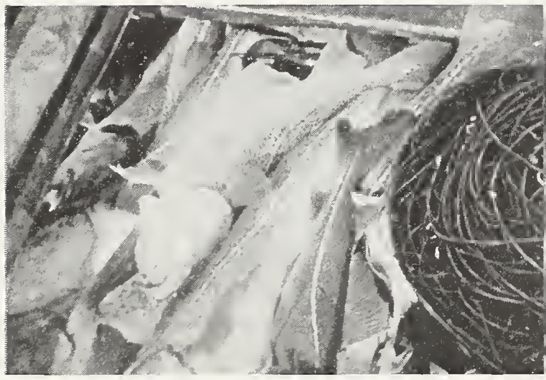
"Voorhees Point," 1923
Stephen F. Voorhees, ACL

Kodacolor, 1933
Rudy Vallee, ACL

"I'd Be Delighted To!", 1932
S. Winston Childs, ACL

"Mr. Motorboat's Last Stand," 1933
John A. Flory and Theodore Huff, ACL

"Camp Pinnacle," 1936
Robert F. Gowen, ACL



"Fishers of Grande Anse," 1935
Leslie P. Thatcher, ACL

"Consider The Lilies," 1936
Fred C. Ells, ACL

Here is a scene from the beginning and one from the current footage of the longest 16mm. family record picture that has been made. The first shot was filmed early in 1920 (three years before 16mm. movies were made public) by John G. Capstaff, who headed the research at Eastman Kodak Company that produced the present system of home movies. The subjects are his daughters, Betty and Phyllis. At the right is a frame enlargement from a 1936 scene of the same girls.

Sixteen years of frame enlargements

The Ten Best for 1936

As chosen by the editorial staff of MOVIE MAKERS

THE 1936 selection of Movie Makers Ten Best is the seventh in the series of these annual ratings, which carry no prizes and which are recognized only in two ways, by publication in this magazine and by the award of a film leader.

This year's rating is divided into two classes, a general and a special, the latter restricted to those films for making which the competitor received compensation from a client at any time prior to the closing of the competition, October 15, 1936. Seven awards were made in the general class and three in the special. Eight Honorable Mentions were given in the general class and two in the special.

The filmers rated this year have followed the same general trends that were noted in the 1935 listing and, as last year, they have achieved distinction, not so much by opening new cine trails as by following familiar ones well. There is an increase in the combined use of black and white and color films in the same reel. Considering the Ten Best and the Honorable Mentions, a total of nine black and white films was selected, eight Kodachrome pictures and three containing both black and white and color. Eighteen of the awards were for 16mm. subjects and two were for 8mm. pictures, of which one was black and white and the other black and white and color. Sound was not represented except in a lecture accompaniment with one film.

Movie Makers offers the Ten Best Non Theatrical Films of 1936, as follows, listed alphabetically, by subjects, in the two classes:

General Class

A Day with the Young Martins, 400 feet, 16mm., black and white, by John Martin, ACL, of Leek, Staffordshire, England.

Architecture and Fine Arts, 300 feet, 16mm., black and white, with Kodachrome insert, by Frances Christeson and Harry Merrick, of Los Angeles, Calif.

East Coast, 1200 feet, 16mm., black and white, by the Rockville Cinema Club, of Rockville Center, Long Island, N. Y.

Moroccan Cities, 400 feet, 16mm., black and white, by Mrs. Gwladys Sills, ACL, of New York City.

Nite Life, 800 feet, 16mm., Kodachrome, by J. Kinney Moore, ACL, of Beverly Hills, Calif.

On Every Hand, 400 feet, 16mm., Kodachrome, by William L. Zeller, ACL, of Peoria, Ill.

Two Weeks, 200 feet, 8mm., black and white and Kodachrome, by W. W. Champion, ACL, of Fresno, Calif.

Special Class

As We Forgive, 425 feet, 16mm., black and white, by the Religious Motion Picture Foundation, of New York City; movie makers: Kenneth F. Space, ACL, and Dan Lindsay.

Mount Vernon Seminary, 1025 feet, 16mm., Kodachrome, by the T. W. Willard Motion Picture Company, of New York City.

The Story of Maytag, 1400 feet, 16mm., black and white, by Fred Maytag, II, ACL, of Newton, Iowa.

As usual, Honorable Mentions were selected by Movie Makers staff, in addition to the Ten Best. Eight of these were in the general class and two were in the special class. They follow, listed alphabetically, in the two classes:

General Class

An Interlude in Happy Isles, 325 feet, 16mm., black and white, by Dr. Delmer J. Frazier, ACL, of Oakland, Calif.

Bryce Canyon Wonderland, 400 feet, 16mm., Kodachrome, by Frank Gunnell, ACL, of West New Brighton, Staten Island, New York City.

Consider The Lilies, 200 feet, 16mm., Kodachrome, by Fred C. Ells, ACL, of Yokohama, Japan.

Love Apples, 400 feet, 16mm., Kodachrome, by Henry Hoke, ACL, of New York City.

Pinch Hitter, 400 feet, 16mm., black and white, by Charles J. Carbonaro, ACL, of New York City.

The Mountaineers Club Teton Expedition, 800 feet, 8mm., black and white, by Ray Garner, ACL, of Brooklyn, N. Y.

The Scalpel, 800 feet, 16mm., black and white, by Richard H. Lyford, of Seattle, Wash.

These Bloomin' Plants, 200 feet, 16mm., Kodachrome, by E. L. Ritzmann, ACL, of Berkeley, Calif.

Special Class

Camp Pinnacle, 600 feet, 16mm., Kodachrome, by Robert F. Gowen, ACL, of Ossining, N. Y.

China's Gifts to the West, 800 feet, 16mm., black and white and Kodachrome, by the Division of Visual Experiment of The Harmon Foundation, of New York City; movie maker: Kenneth F. Space, ACL.

Of the makers of these selected films, four are organizations, all of which have members who are also members of the Amateur Cinema League. One of these is a motion picture club. Four of the individual filmers of the selected pictures are not League members. All other individuals whose films were chosen have League memberships.

Countries represented in the selection are the United States, with eighteen, Great Britain, with one, Japan, with one, although the filmer is a citizen of the United States. Of the states of the United States, New York is represented by ten, California by five, Illinois, Iowa and Washington each by one. In cities, Greater New York City leads with eight; Greater Los Angeles has two and the metropolitan area of the Bay Cities (San Francisco, Oakland, Berkeley, Ala-

[Continued on page 542]

The clinic

FREDERICK G. BEACH, ACL

Technical comment and timely topics for the amateur

Santa shot ■ The drawing on this page shows a very simple lighting setup for an interior shot with Type A Kodachrome. This arrangement may be used with any camera having an *f*/3.5 lens. Three good reflectors with flood bulbs will give enough light for the scene. With any color lighting setup, it is desirable to have flat lighting. In this case, the three lights are placed at a distance of three and a half feet from the subject and two of them are at about forty five degree angles from the lens axis. The third light is still the same distance away from the subject but is clamped on the camera tripod, as is shown in the drawing. As a result, it will be lower than the camera itself, while the other two lamps can be as high as or higher than the camera, depending on the height of the subject. Try this arrangement with an opening of *f*/3.5.

Fuses ■ A great many questions have reached the Technical Department about the current consumption of Photoflood bulbs. It is helpful to know what each type consumes so that one can judge readily how many can be put safely on one circuit in the average home. The No. 1 draws 2.12 amperes, while the No. 2 draws 4.4 amperes and the No. 4 8.7 amperes. Inasmuch as the average home circuit is fused for 15 amperes, this is the safe total load. Inspection of the fuse box will show the safe limit at once. In photographic effectiveness, one No. 2 Photoflood is equal to two No. 1's. The No. 4 is equal to approximately four of the No. 1's or two No. 2's. The Movieflood, which is used for industrial filming on quite extensive interior scenes, draws 18 amperes.

Reversal film ■ The process of reversal, the very thing that made amateur movies practical, is still a mystery to many people. As we all know, the film, as it comes from the camera, is processed in such a manner that it is returned to the movie maker ready for projection. In this process, it must be developed first into a negative and then bleached to remove all the silver that has been exposed to the light. This leaves only the unexposed portions of the emulsion, which are then exposed to a light. These newly exposed emulsion particles are then developed, and the result is a finished positive film such as that used for projection. The important point of economy is that the film projected is the same one that was originally run through the camera.

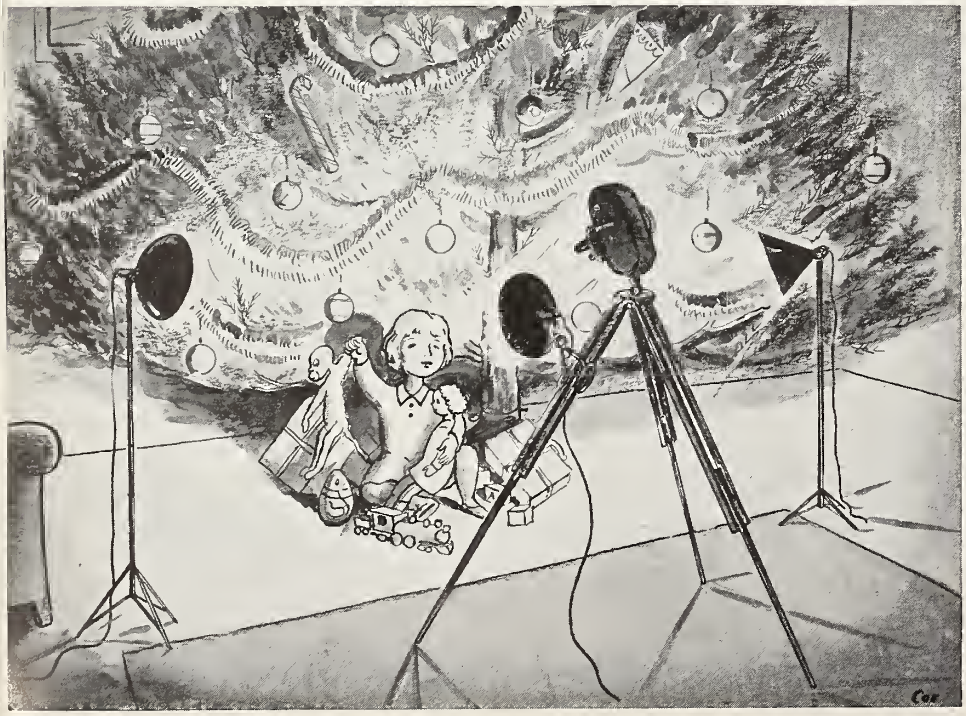
To "pan" or not ■ The constant crusade of the League continuity and technical consultants against "panoraming" has received commendation from W. French Githens, president of The Newsreel Theaters, Inc., of New York City, who was formerly managing editor of Pathe News. Mr. Githens says that, during his regime at Pathe News, any newsreel cameraman who sent in a panorama made for any purpose other than following action was promptly fired. If the theatrical industry can take as drastic a stand as this, it should be plain to the amateur movie maker that there is a reason for the perennial advice: *don't "pan"!*

Follow shots ■ A follow or trucking shot never can be made successfully if the cameraman takes it upon himself to walk with the camera. There are many substitutes for a dolly—the family tea wagon, a baby carriage or a child's wagon. The latter is usually large enough to permit the camera to be mounted on a tripod, and sometimes the operator can ride with the camera while it is running. Of course, lighting becomes a problem, and the lights must either move with the subject or be placed so that the subject will be in good light constantly.

Depth in lighting ■ One of the most helpful rules to follow when planning interior lighting is to light the background as well as the subject. This will do more to give the picture depth than anything else that can be done. After the subject is lighted adequately for proper exposure, add a light or two so that their beams are thrown directly on the background, not necessarily as a back light but simply to give another plane of effectively lighted surface.

Pictures of a movie ■ A fast lens and supersensitive film will enable the movie maker to take pictures of the screen image in the average movie house. There may be an intermittent dimming, due to the shutter of the camera getting into

[Continued on page 552]



Here is a lighting setup for a closeup in Christmas color

Forbath & Rejane from R. I. Nesmith and Associates.

This scene could be lighted easily as here described

Lighting up

Simple expedients for average homes that give results

KENNETH F. SPACE, ACL

INTERIOR scenes are easy to make now, and a sequence that would have represented an evening's work a few years ago now can be filmed in a half hour and filmed much better. Faster film and flood bulbs have turned this trick, and today the movie maker who is willing to acquire an efficient lighting unit or reflector and spend a dollar or two for some flood bulbs can make movies inside his home almost as freely as he would out of doors.

But there is another important necessity if you are to get consistently good results in filming by artificial light, and that is a good photo cell exposure meter. This applies to experienced movie makers and the newest amateurs alike. Anybody's guess may turn out good once, twice or even three times, but if you want *consistently* good results, use an exposure meter!

You may ask, "How about all the lighting data and interior exposure charts we have read? Were they all wrong?"

No, decidedly not. But look at them again and you will see that they are intended to give average or general results based on the modern film's latitude to compensate for over and underexposure. It isn't humanly possible to make a chart to fit all colors of clothing, complexions and background for all degrees of light. Then, too, different manufacturers make various types of reflectors, and the correct exposure with one type may be wrong with another. For example, one maker definitely states that the exposure data are published for that firm's product and film only. Then one of us will go into the corner hardware store and pick up a cheap reflector, follow the exposure suggestions for the more expensive reflector and yet expect the results to be perfect.

But, if a photo cell meter is used correctly, every shot can be correctly exposed. While the meter will give any movie maker properly exposed scenes, there is still the problem of attractively lighted scenes, about which much could be said.

Aside from underexposure, perhaps the most common error in interior lighting is in failing to illuminate the background. Sufficient illumination to give correct exposure for a closeup will, in most cases, still leave the walls and objects very underexposed; as a result, on the screen we get the effect of a face standing out of darkness, which gives a theatrical rather than a normal impression.

One method of solving the difficulty is to replace the principal light bulbs in the room with flood bulbs. In this way, the entire room will become bright enough to make an exposure possible, while the lighting scheme still will correspond to the original balance of lights.

One difficulty with this arrangement is that many lamp shades are so thin as to cause overexposure when flood bulbs are within them. Then, too, if any unshaded bulbs are used, they are likely to cause a flare or an overall grayness in the resultant picture. It is good policy to use a lens hood (no matter how makeshift or inexpensive) that extends far enough forward to shield the lens efficiently.

Another method is to use six or seven bulbs in stand and clamp reflectors and to direct them toward the scene, from a number of different positions, to represent light coming from various ordinary lighting fixtures. This often works out well, since lighting from several sides gives a depth to faces and objects in the room. This same depth would be sadly lacking if all the reflectors were to be placed near the camera so that they would reflect the light directly on the scene. In that case, the faces are likely to look flat, for features will not stand out.

Perhaps the best method is to arrange various groups of reflectors to illuminate the characters and to have plenty of extra reflectors, the light from which is directed toward the backgrounds. However, in the case of photoplay and publicity filming, with large sets and groups of people, I found that five or six cases of lights and cable involved quite a complicated task in transportation and setting up.

A little experiment gave me the solution to the awkward transportation problem and, at the same time, provided a lighting arrangement superior to any other I had obtained. This method can be used with the greatest of ease and efficiency by any movie maker working at home or elsewhere. The main requisites are, first, a fairly low ceiling in the room in which you are filming and, second, a No. 4 Photoflood in an efficient reflector. A large area or a lens no faster than $f/3.5$ may necessitate the use of two such bulbs. The lighting method is merely to turn the reflectors up toward the ceiling and to tip them slightly in the direction of the scene, although not directly illuminating it. The reflector stands are first raised to a height of about six feet from the floor.

Try this lighting method and you will see at once how the whole scene is flooded with a soft, yet brilliant light. Finally, replace the floor and bridge lamp bulbs with sixty watt bulbs to highlight the features of those sitting near them, and you will have an ideally illuminated scene for general work. There will be no heavy shadows in faces, while the background material and walls will get their share of the light, and hence any extreme contrast will be avoided.

Long shots and closeups taken by this method leave little to be desired from the standpoint of quality if the shots are correctly exposed. If you try this simple method just once, the odds are that you will never go [Continued on page 556]

This medium shot calls for a closer view, not a "pan"

Lois Hazell

Making movies move

JAMES W. MOORE, ACL

ONE of the first general precepts about motion pictures to lodge in the mind of a beginning movie maker is the pleasant platitude, "A good movie must move." Seemingly simple and straightforward, this philosophy about the cinema has been handed down from cameraman to cameraman as the *sine qua non* of all motion picture theory, the keystone of the cinema's structural arch. *A good movie must move!*

And so indeed it must, and the precept is a darn good one—just as soon as we understand *all* the implications of this simple saying. First off, of course, each of us thinks that it applies solely to the subject matter of our films. We must turn our cameras on moving objects, and the more movement the better. We recall that in its early days the motion picture concerned itself almost wholly with action—the interminably galloping horses of the wild Western, the roaring, runaway train always threatening the heroine, or the immemorial chase sequence in its many forms. With these in mind as the meaning of a movie which moves, we proceed to expose hundreds of feet on all kinds of dynamic sports, on topical or news events or simply on the family moving about the front room or the back yard.

This is all well and good. As a general principle, it *is* far better for a movie camera to picture subjects which offer some movement rather than objects which are inherently lifeless and still. But this is far from being the entire meaning of that basic precept quoted above. If it were, and a movie maker followed such a ruling religiously, nearly a good half of available subject matter might be cut off from our concern. For life is not all movement, any more than it is all light and no dark or all bad with no good. One has not been long filming before he makes this discovery. What about the striking cloud formations which so beautifully adorn a scenic view? What about the view itself, majestic or pastoral as it may be? These, and countless other shots, will sorely tempt the intelligent movie maker—and yet they offer little of movement to his camera.

What new filmers should learn about giving reels life

What is one to do? Perhaps, if the subjects will not move, the answer is then—move the camera. After all, we may reason, this movie camera *can* be moved as it is taking pictures. It's not like my snapshot camera, in which the slightest movement during exposure would blur the picture. Here is my cine camera, taking sixteen pictures every second, at an average exposure time of one thirtieth of a second on each picture. No chance for blur there! Let's try moving the camera across some of these still objects and see what happens. Probably that's one of the fundamental ways of getting movement in a movie.

And so, inevitably, each one of us tries moving his cine camera across still scenes and, sooner or later, we find out what happens. Most of the time the images do blur. That thirtieth of a second exposure turns out not to be so magically instantaneous as we thought it would be. Objects seem to jump on the screen, which in nature are as solid as Gibraltar. Definition smudges up and vertical lines jitter like a man with tropic fever. Distressed, the eye finds no image it can rest on in peace and appreciation. Perhaps, after all, this business of moving the camera on still subjects was not one of the intended methods of imparting motion to our movies.

There, on this entirely correct decision, most of us come to a standstill on the whole pesky problem. We will try as much action as we can, and we will try to foreswear "panning" or tilts. It is not hard to see how much this decision improves the quality of our pictures almost overnight. Probably, we think, there is nothing much more to good movie making than this decision anyway.

But there *is* something more, and it is a simple, important something which stems directly from the adage that a good movie must move. In many ways, this further meaning of the precept is far more significant to the success of a film than the commonly accepted (and not too important) dictum about action. It is, simply, that a movie must move because of a constant change of scene and by virtue of an unfailing variety of viewpoint. It implies that, although the camera must remain steady during the exposure of any one shot, it must never remain static in its picturing of a given subject. The camera must be an all seeing eye, able to move and intent on moving everywhere, as each subject may

[Continued on page 548]

Studies in snow

EPES W. SARGENT, ACL

WINTER'S snow brings to the novice cinematographer a new field of opportunity and experiment. His reading may have told him that a photograph is a contrast of light and shade. What greater contrast can be found than here? But that's where the trouble lies. A more competent direction would read that a photograph is a record of the gradations of light and shadow, not an all black and all white.

Probably the same book which defined the photograph also gave a table of light values, from which it appears that the actinic value of winter light is considerably less than that of the summer sunlight, while the best shooting period is limited to two or three hours each way from noon. That may be true. But it also is true that the most successful camera artist is he who knows when and how rules can be broken.

Probably not even the novice will adhere so slavishly to the rule as to give several times the exposure to a winter snow scene that he would give to a June shot. He will know that a vast expanse of white calls for a moderation in the exposure. But what he may fail to remember is that the actinic value is still the winter norm, and that things in shadow are not materially lightened by all the glare. The result will be that he will get both hard lights and hard blacks, with practically no detail in the shadow. His eye may note the details, but the camera will record only what is within the film's exposure range, and there will be no detail, but an almost solid black which looks all the more ebon because of the contrast with the snow surfaces. It follows, then, that the best technique for the beginner is to use shadows for contrast, but not to depend upon shadowed details to tell the story.

Wise workers will use a light yellow filter to cut the intense blue light, but not deep enough to reduce entirely the strong reflections. Some of the glisten of the snow needs to be retained. One thing to remember is that a snow covered field is likely to flatten out. The camera is not yet three dimensional, and the depth which attracts the eye will register merely as a flat strip of white. For this reason, it is good practice to "angle," shooting from below the waist line, pointing slightly upward, rather than from the normal eye height. Side or back lighting of your scenes will also contribute greatly to overcoming this flat effect. Also to be remembered is that, since the snow shots will probably be shown at the same time, there should be the usual proportion of close, medium and distant shots to give variety.

Nothing can be more uninteresting than an unbroken succession of similar shots, up the road, down the road, across the fields. This is just as bad in a personal or scenic film as a similar set of unrelated shots would be in a drama. The principle in the two types of pictures is the same—a break up in the monotony. For this reason, as you film, seek variety for your picture and try to get groups of related shots.

If you live in the country, you have all outdoors in which to work, but the city dweller is by no means handicapped. There is almost always a park or, failing this, go slightly further afield, to the waterfront, if there is one, to the railroad yards or to some factory where raw material, now snow covered, may be worked into some charming sequences. The film need not be this elaborate. What could be more eloquent than a child's express wagon, abandoned and on its side, which is followed by scenes of youngsters on sleds?

If the snow has been wet and heavy, clinging to the branches of trees and shrubs, there is a wealth of material. Try

[Continued on page 553]

Many and various cinematic ranges of wintry blanket

A scenic sequence fits in almost any winter cine study

Claude T. Rice

The League has a birthday party

Drucker & Baltes Co.

FOR ten years, members of the Amateur Cinema League have wondered what each other was like and what the personalities were behind the membership cards that have been so widely distributed over the whole world. In those ten years, members have met other members at club meetings, have encountered them in travels and have seen each other incidentally, if they happened to come together at League headquarters for annual meetings, or for other reasons. But, because the League is primarily a service body and not a social organization, there have been no large assemblies of filmers who write ACL after their names, until Friday, October 23 of this year.

On that date, the formal recognition of the League's tenth anniversary was celebrated by a gathering of over four hundred League members and their guests at the Hotel Roosevelt, in New York City, where, with the exception of three non member speakers, the entire presentation was made by League members. This occasion reviewed the course of amateur movies from the beginning and brought it up to the present.

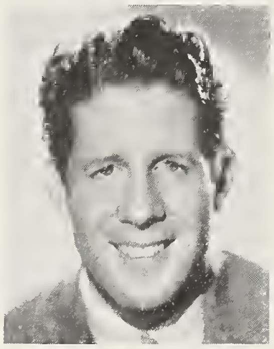
Prior to the dinner service, guests inspected an important historical exhibit of cameras, projectors and film, assembled by the League's staff, with the generous assistance of the amateur movie industry and individual friends who lent items. This equipment ranged, in date, from the early Twentieth Century. It endeavored to show what had gone before the establishment of the Amateur Cinema League, July 28, 1926, as well as what has been offered since.

Early pieces in the exhibit were the Edison Kinetescope, using 22mm. film, which is dated 1912; the Barnes camera, using 35mm. film, bearing the date of 1908; the 9.5mm. Pathex camera, introduced in Europe in the early 1920's, although not offered for sale in the United States until 1925; the first Victor Animatograph 16mm. camera, offered to the public in 1923; the first Ciné-Kodak, made available later in 1923, together with two most interesting items, the experimental models of this camera, bearing the dates of 1920 and 1922; the first model of the Filmo, with the date of 1924; the Movette camera and projector, using 17.5mm. film, 1922; the Pathescope camera, using 28mm. film, marketed in 1913, with its companion projector, built in 1928; the interesting Kinedome projector, using 12mm. film, and built in 1907; the Duplex Projectorgraph, using 11.5mm. film, built in 1923; also an early example of amateur movie effort, a home built 35mm. camera, produced by Russell C. Holslag, ACL, in 1917.

This equipment exhibit covered monochromatic and color filming and both silent and sound movie making. It was arranged in three classes, each of which was presented chrono-

Guest speakers at the League's Tenth Anniversary Dinner

Joseph Dombroff



Rudy Vallee, ACL

Hal Phyfe

Beth Brown, ACL

Dr. C. E. K. Mees

Governor Carl E. Milliken

Over 400 attended League dinner for its tenth birthday

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Guests were seated at forty one tables on the floor. Amateur movie clubs and other organizations reserving tables were the Cinema Club of the Oranges. The Harmon Foundation, the Metropolitan Motion Picture Club, the Mount Kisco Cinemats, the Newburgh Cinema Club and the Philadelphia Cinema Club.

Among the guests coming from distant places were Ralph E. Gray, ACL, from Mexico City; E. M. Barnard, ACL, from Arkansas City, Kansas; and M. Armour Landry, from Trois Rivieres, Canada. Most of the area in Southern New England, New York, Pennsylvania, Maryland and the District of Columbia had representatives, although the greater attendance was from the metropolitan neighborhood of New York City. As was announced, in a previous editorial in MOVIE MAKERS, League members paid for their tickets and for those of their guests.

At the conclusion of the dinner service, a program of addresses followed. These were *A Welcome to our Guests*, by Stephen F. Voorhees, President of the Amateur Cinema League; *Our Founder—Hiram Percy Maxim*, by Arthur A. Hebert, treasurer of the Amateur Cinema League; *The League and the Manufacturer*, by Dr. C. E. K. Mees, vicepresident of the Eastman Kodak Company; *The League and the Dealer*, by Joseph Dombroff, president of the National Photographic Dealers Association; *Ten Years of Cooperation*, by Governor Carl E. Milliken, secretary of the Motion Picture Producers and Distributors of America; *Why I Do It*, by Rudy Vallee, ACL; *A Novelist Uses Her Shears*, by Beth Brown, ACL.

Mr. Voorhees emphasized the happy nature of the evening and asked for an informal enjoyment of the program by all guests. He recalled the initial luncheon of the League, in New York City, in 1926, under the leadership of the late Hiram Percy Maxim, the League's Founder, and expressed the deep regret of all League members that Mr. Maxim could not have lived to see the gathering. He gave reminiscent anecdotes of the naming of the League and of MOVIE MAKERS and told some of his own pioneer experiences in movie making more than a decade ago. Mr. Voorhees said, in conclusion,

"Let us hope that, in the next ten years, we shall see even greater advances all the way through those years—advances in our equipment and in our films. Let us all look forward to another birthday party, ten years hence."

Mr. Hebert told of the courage [Continued on page 543]

Drucker & Baltes Co.

The League has a birthday party

FOR ten years, members of the Amateur Cinema League have wondered what each other was like and what the personalities were behind the membership cards that have been so widely distributed over the whole world. In those ten years, members have met other members at club meetings, have encountered them in travels and have seen each other incidentally, if they happened to come together at League headquarters for annual meetings, or for other reasons. But, because the League is primarily a service body and not a social organization, there have been no large assemblies of filmers who write ACL after their names, until Friday, October 23 of this year.

On that date, the formal recognition of the League's tenth anniversary was celebrated by a gathering of over four hundred League members and their guests at the Hotel Roosevelt, in New York City, where, with the exception of three non member speakers, the entire presentation was made by League members. This occasion reviewed the course of amateur movies from the beginning and brought it up to the present.

Prior to the dinner service, guests inspected an important historical exhibit of cameras, projectors and film, assembled by the League's staff, with the generous assistance of the amateur movie industry and individual friends who lent items. This equipment ranged, in date, from the early Twentieth Century. It endeavored to show what had gone before the establishment of the Amateur Cinema League, July 28, 1926, as well as what has been offered since.

Early pieces in the exhibit were the Edison Kinetescope, using 22mm. film, which is dated 1912; the Barnes camera, using 35mm. film, bearing the date of 1908; the 9.5mm. Pathex camera, introduced in Europe in the early 1920's, although not offered for sale in the United States until 1925; the first Victor Animatograph 16mm. camera, offered to the public in 1923; the first Ciné-Kodak, made available later in 1923, together with two most interesting items, the experimental models of this camera, bearing the dates of 1920 and 1922; the first model of the Filmo, with the date of 1924; the Movette camera and projector, using 17.5mm. film, 1922; the Pathescope camera, using 28mm. film, marketed in 1913, with its companion projector, built in 1928; the interesting Kinedome projector, using 12mm. film, and built in 1907; the Duplex Projectorgraph, using 11.5mm. film, built in 1923; also an early example of amateur movie effort, a home built 35mm. camera, produced by Russell C. Holslag, ACL, in 1917.

This equipment exhibit covered monochromatic and color filming and both silent and sound movie making. It was arranged in three classes, each of which was presented chronologically, one embracing cameras, one projectors and one films. It contained articles manufactured in the United States and in Europe. It was the most comprehensive collection of historical amateur movie equipment ever assembled anywhere. Regrettably it was impossible to preserve it, because of the expense involved, although its component parts are located and are capable of assembly on future occasions. (Pictures of some of the historical equipment exhibited are on page 537.)

Guest speakers at the League's Tenth Anniversary Dinner

Joseph Dombroff

Rudy Vallee, ACL

Hal Phyfe

Beth Brown, ACL

Dr. C. E. K. Mees

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[Continued on page 543]

Practical films

■ In Arkansas City, Kans., Richard Curtis, ACL, has completed an interesting and effective one reel, 8mm. film for the Garden Club of his community, in which monochrome and color stocks have been combined with some success. Black and white has been used in the earlier sequences, which suggest the initial activities of the real gardening fan, while Kodachrome has been used in the body of the film to depict the outstanding floral beauties of the city's many private gardens.

■ From the Religious Motion Picture Foundation, in New York City, comes the gratifying announcement of the addition to its list of rental films of three 16mm. pictures produced by Fred C. Ells, ACL, in Yokohama, Japan. They are *In The Beginning*, two reels; *Tambo*, two reels; and *Rice*, three reels. Each of these films has won a full share of honors in amateur filming competitions around the world, awards which are now effectively corroborated by their acceptance for the serious, practical work carried on by the Foundation.

■ To take the factory of The Maytag Company, washing machine manufacturers of Newton, Iowa, to its five thousand dealers and more than ten thousand salesmen (since they could not bring them to the factory) was the primary purpose behind the production of *The Story of Maytag*, a 1400 foot, 16mm. industrial record film produced by Fred Maytag, II, ACL, vice-president of that company. Twelve copies of the picture are now in active service, with a record, at the last check-up, of screenings before more than fifteen thousand persons. Although designed specifically for salesman education, the film already has been given a number of successful presentations before lay audiences, including a theatrical billing as an added feature to the regular program of small movie houses. Mr. Maytag reports that the company will gladly supply it on the free loan basis to readers of Movie Makers for group screenings. Requests should be addressed directly to him, in care of The Maytag Company, at Newton, Iowa.

Cy. La Tour

Department stores should find a Santa Claus film useful

■ The problems and processes of large scale fruit growing have been pictured by John G. Ellis, ACL, of Lee, Mass., in a two reel, 16mm. Kodachrome picture, called *Blue Goose Tales—Navel Oranges*, which he completed last year for the American Fruit Growers Association, at San Diego, Calif. In order that the association might have a copy for sales use and that he himself might have one for his personal library, Mr. Ellis took each separate scene in duplicate throughout production. Now, on his own Highfield Farm, outside of Lee, Mr. Ellis is in the latter stages of production on an elaborate propaganda picture concerning the food value of milk. Tentatively titled *Milk for Millions*, the film will present in full color a broadly educational story of the life of the registered dairy cow, with subtle suggestions of the superiority of the Holstein breed, the specialty of Highfield Farm.

The non theatrical movie as used for various purposes

■ Beside the multitude of his duties for the American Board Mission, at Fukien, China, the Reverend Arthur O. Rinden, ACL, will have in production during the coming year no less than four practical films of an educational nature. They are an interpretation of Chinese life and customs through a life story of rice and its uses in the Orient; a documentary report on the progress of a new governmental era in Fukien; a semi dramatic picture of the work of the mission's Union Hospital, and a working report on the local Christian orphanage and school. All the films are intended for educational screenings in America among the Board's constitutents, as a modern method of acquainting them with the work which they support.

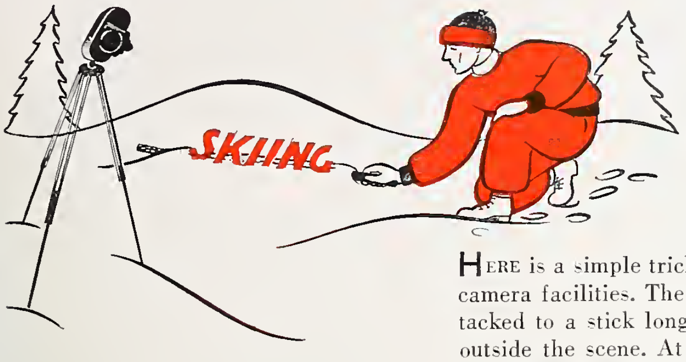
■ At Columbia University, in New York City, the work of the Graduate School of Journalism has been pictured in a two reel, 16mm. Kodachrome picture, supervised by Dean Carl Ackerman, ACL, and photographed and edited by Professor Herbert Brucker, assistant to the dean. Class room activities, faculty personnel and individual students are featured in this record picture, which has been screened with considerable success at the annual Journalism School dinner, before visiting parents during commencement and before new students at the opening of the past semester. Dean Ackerman, a keen movie maker himself, has the distinction of being ACL member No. 1 on the League's rolls.

■ John V. Hansen, ACL, League director, served as unofficial host for the Histiological Society of Denmark in explaining the attractions of that country to several hundred distinguished scientists, among them Colonel Charles A. Lindbergh and Dr. Alexis Carrel, who met for the International Histiological Scientists Convention, at Copenhagen, Denmark, during the first week of August, 1936. As a featured part of his presentation, Mr. Hansen screened one of his Kodachrome reels, *Denmark in Color*, and went on, by request, to explain the technical aspects of the photographic medium he was using.

Mr. Hansen's beautiful color and black and white films of Denmark have been screened for many scientific and cultural organizations in Copenhagen.

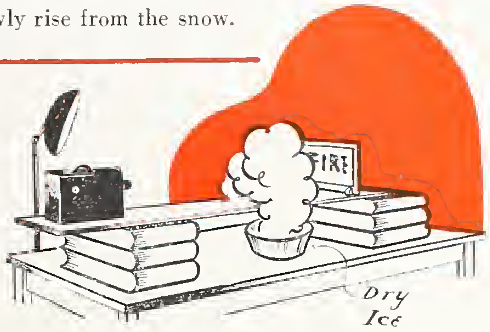
Title teasers

Puzzle audiences by simple tricks illustrated here



HERE is a simple trick title that does not require any special camera facilities. The cardboard letters forming the title are tacked to a stick long enough so that it can be moved from outside the scene. At the beginning of the title footage, the wording is buried in the snow, and then an assistant turns the end of the stick so that the letters slowly rise from the snow.

THE dense vapor produced by dry ice that is placed in slightly warm water is a very convenient and easily handled aid in producing remarkably beautiful title effects. Simply place the pan containing the dry ice underneath or near the title board, so that the vapor will rise and obscure the title card. Start the scene with the clouds of vapor filling the camera field and then, to reveal the title, blow the vapor away. It is heavy and sluggish and handles easily. Colored lights playing on the vapor will produce beautiful effects in Kodachrome color titles.

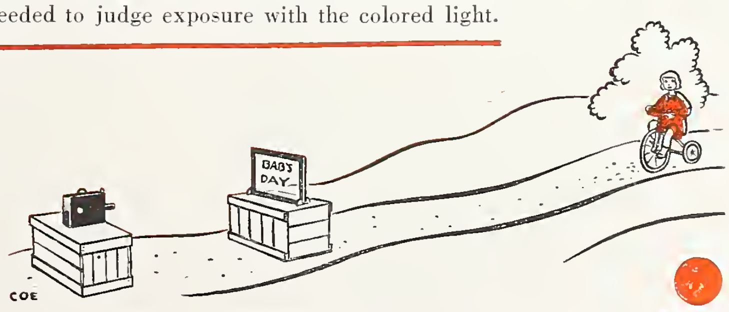


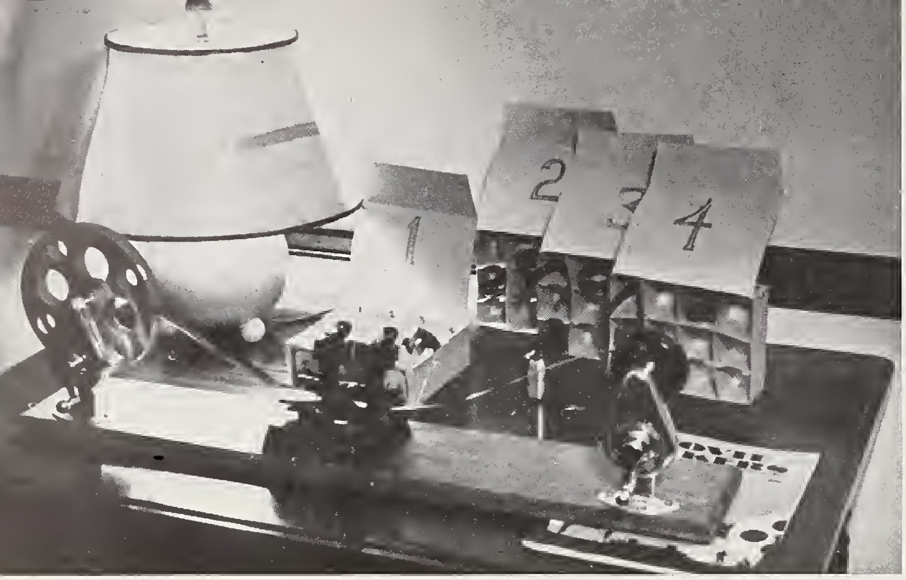
THE book title offers an opportunity for interesting and appropriate action, and yet it is very simple to handle. Letter the titles in black on a piece of tan or cream colored paper of pleasant texture and then paste this neatly on a leaf of an old book. Center the book in a closeup and have an assistant slowly open it to the title page as the scene is being made. If you have a series of titles—a lead title assembly—the assistant can turn the next leaf and so on. Do not use glossy white paper for the title lettering. Of course, color offers the opportunity to use all sorts of art paper.

REVERSE motion, easily obtained with any camera, simply by holding it upside down and turning the scene end for end after it has been processed, is the hardy perennial of all title tricks. It can be adapted in as many ways as your imagination can devise. Here it is used with paper letters that are blown away by the fan. The camera is held upside down, the desired title footage is made and then the fan is turned on and the letters are blown away. On the screen, the letters will appear to fly into place. For Kodachrome, cut the letters from colored paper.

SOME movie makers find it convenient to have a standard title card, which carries the words, "Filmed by" or "Produced by," followed by the filmer's name. Lettered in white against a gray background, this title card can be photographed at any time with reversal film. If it is to be used for a Kodachrome picture, it may be given any color desired by the simple expedient of using colored gelatin over the lights. Any black and white title can be given a color effect by this procedure. A meter is needed to judge exposure with the colored light.

DOUBLE exposure to get title backgrounds in motion is not difficult, but here is a method of getting the same effect that anybody can follow. The title letters either are painted on glass or are cut out of paper and pasted on glass. The glass is placed at a suitable distance from the camera, so that it fills the field, and the action is arranged behind it. Focus on the title but, if possible, use a small stop so that background action also will be in as sharp focus as possible.





Alexander Healy, jr., ACL

Egg boxes can be packed away after each editing job

Try the editing game

RUSSELL C. HOLSLAG, ACL

IS FILM editing a task? In the sense that it involves the expenditure of thought and effort, yes. But a good lively game of tennis certainly involves the expenditure of effort, and a rubber of bridge the application of intense thought. No, we don't deny the thought and effort, but, rather, we affirm the joy of creating lucidity and interest through the rearrangement of your film shots. This is a deep inward satisfaction which is reiterated by the pleasure of your audiences as they see your pictures.

The objective is to rearrange the scenes in your films so that they will have a more attractive or interesting order and, incidentally, to eliminate those which contain flaws—light struck sections, out of focus shots and so on. Such things occur in unclassified succession on your hundred or fifty foot lengths of film ribbon. So the first thing is to find out exactly how you stand with respect to the contents of your films, good or bad.

If you had a bunch of photographs—some of the city, some of the country, some of the family and some of your travels, all mixed in together, good and bad alike—and you wanted to show them to good advantage, what would you do? Why, sort them out, of course. Well, that's what you do with your film shots. Of course, each shot is joined to the next, so the first step is to run them through the projector, so as to identify each one, and then cut them apart.

At the direction, "cut them apart," a new movie maker may start in dismay. "Cut them apart? Then I'll need a splicing machine to put them all together again! My clean film full of splices! I'm afraid they'll come apart quickly, or break in my projector and gum up my shows!"

But this is nonsense, for splicing is one of the easiest things in editing, and a splice, made on a good splicer, will last as long as the film itself. Which is a good splicer? Any of the machines you see offered in Movie Makers are good splicers; they will do their work well and quickly and are easy to use.

A splice is created, not by adhesive action (as in pasting or gluing) but actually by melting together or welding the film ends. One might say that the two ends of the film to be spliced are partially dissolved, made to flow together under pressure, then allowed to harden!

But we won't take the time to discuss the chemistry of the operation; all we need to know is that the action takes place in less time than is required to read this paragraph and that a well made splice is permanent. The operation of any particular splicer need not be described in detail here, because full directions will accompany each one. We may with profit, however, emphasize some of the operations involved which are important for good results.

If you have not tackled cutting it is about time

The splicing machine holds the two ends of the film in the correct relationship so that they will join squarely, and the sprocket holes, or perforations at the edges, will match. It is by the edges that the film is handled in going through the projector, so that particular care should be taken to apply the cement (really a film solvent) at the edges and around the perforations.

Of course, we all know that the picture on the film is not embedded in the film itself. The picture is produced in a layer of gelatin, called the *emulsion*, which is coated on the base. Film cement will not affect the *emulsion*, so this must be scraped away from the base on that portion of the film which overlaps in making a splice. Since the emulsion of both pieces of film must face in the same direction when the splice is completed, and since the film must overlap for a splice, it follows that the back of one film must be cemented to the front of the other. Thus, the emulsion must be scraped off from the front (or picture) side in the area where the two films overlap. If a splice comes apart later, the defect almost always can be traced to an incomplete removal of this emulsion from the splicing area. In applying the cement to a splice, best results are to be had, not by flooding the splicing area with the solvent, but by making sure that *all* this area is fully covered with a thin coating. If there is too much cement, it may seep underneath the splice and leave a messy area on the film.

After the splice is made, it may be tested immediately by subjecting it to a straight, steady pull. If correctly made, it will not separate under this test. As soon as the splice is made, excess cement should be wiped off around the edges of the patch with a small piece of cloth.

We have seen that there is no danger involved in cutting the scenes in one's films apart, but why cut them apart? In order to classify them is the answer. In almost every case, the scenes in our films are not arranged to the best advantage from the point of view of presentation. This is because every movie maker is an opportunist in taking his pictures; he seizes good chances when they occur, and the subject matter of these opportunities is seldom related in an interesting way. Of course, a sequence of shots can be planned—the garage doors open; father backs the car out; then we see mother's hands preparing the picnic lunch; when her back is turned, junior steals a bite from a sandwich; then we are out with father in the car and see his hand on the horn button; then, in long shot, we see the family coming out of the door and scrambling into the car; finally, the car disappears down the road and the picnic has started. To take all these shots in their right order on the film would involve a bit of a scramble on the part of the cameraman. Far better to take the shot of the family coming out of the house and, perhaps, the closeup of the hand on the horn button. All the others could then be made at other convenient times. In other words, editing by rearrangement of scenes is much easier than

[Continued on page 554]

Nite Life

J. KINNEY MOORE, ACL

How one Ten Best film maker went about his problem

EACH of us has his own special way of movie making, so I hope that you will not mind my talking about my way for a little while. In making *Nite Life*, I said at the beginning that you can't get something for nothing. So, the more difficulties I should have and the harder I might make the whole thing, the more real and lasting would be the pleasure from it. When I took stock of what I knew and did not know about making pictures, I was none too confident, but I took a deep breath and plunged in.

A scenario was written around my three year old son, my wife and me. Practically all the action was to take place in one room, and the film was to have a lot of trick sequences, made plausible by a nightmare. The completed picture is about one third ordinary Kodachrome and two thirds Type A Kodachrome. Unfortunately, the new and faster color film was not available until the shooting was well under way. When the scenario was completed, the fun began, because its sequences showed little mercy to cinematic inexperience.

Here is a curious thing. When you follow a scenario almost to the letter, you will be amazed to learn how many simple things are hard to get. Who would think that a factory whistle blowing would be difficult to find? It appears that factory whistles are not made for amateur filmers to play with. When they blow, they are supposed to mean something. You can't sit around at the noon hour with your camera running, waiting for your pet whistle to blow. I tried that, and, because of my precarious perch, I could not use a tripod. After what seemed to be miles of film had run through the camera, the whistle finally went off, but it startled me so much that the camera almost jumped out of my hands, ruining the shot. I solved this whistle dilemma by building up an excuse to visit one of our plants in another city on business. While I was there, the engineer obliged me with a few blasts at the noon hour, while I used different lenses for a long shot and a closeup. This extra tooting meant fire in that city, but luckily the firemen were too interested in a pinochle game to be bothered, so I was spared the untimely arrival of the fire truck.

In another sequence I learned about cats. The scenario called for a revengeful feline, nearly as big as a man, to appear in the center of a bedroom, armed with a devil's pitchfork. I planned to shoot this in reverse motion, so that there would first appear darkness on the screen, then the pitchfork, then an accumulation of white smoke, which would disappear, leaving the cat standing beside the pitchfork. It was to be taken with the camera upside down and at the cat's eye level. Just below camera range a little black powder was placed, with wires from a spark coil to set it off. To give a realistic effect, I chose a particularly ugly and irritable old tom cat. All efforts to get him to stay near the small red pitchfork were useless, when the lights were on. Finally, I decided to use slow motion, to get as many frames as possible. Some extra powder was added for good measure and the camera was started. After smoothing Tom down, as far as his suspicious nature would permit, I lifted him ever so gently and dropped him into the scene beside the pitchfork. Then the powder was touched off. Tom lost his whiskers, his temper and his last remains of faith in humanity. He was a mile away before the smoke cleared.

Some of the technical features of this picture might be of interest. The title, *Nite Life*, was faded on a background of blue sky, with stars twinkling, and on one side of the scene was placed a long burning candle. The blue sky was a three by four foot piece of cardboard painted an appropriate blue and riddled with holes by different sized lead pellets from a shotgun. This cardboard was hung a foot in front of a piece of corrugated galvanized iron of the same size. The iron sheet was suspended on springs, so that it could be moved up and down. Lights were placed high, on each side of these two suspended sheets and between them, so that, as the iron sheet was moved, the corrugations reflected more or less light through each shot hole. Enough footage of this background with the candle alongside was taken, the film was rewound and the words, "Nite Life," painted in white on black cardboard, were filmed. This same background, but with the candle burned down, was used for "The End."

I discovered an exceptionally striking effect in making the credit titles for the film. It is very simple, and a thousand and one variations of it are possible. A motion picture screen, a white cloth, or any other soft reflecting surface, is hung up. A few feet away, and on the same level, the camera is set.

[Continued on page 559]

Two shots enlarged from "Nite Life", a comedy in color

J. Kinney Moore, ACL

Amateur clubs

JAMES W. MOORE, ACL

New York is host ■ More than two hundred members and friends attended the Third Annual Guest Night meeting held last month by the Metropolitan Motion Picture Club in New York's Hotel Pennsylvania. A feature of the occasion was a six page, gala issue of *Closeup*, the club's attractive news bulletin, which was prepared under the joint editorship of Edith J. Schroeder, ACL, Annette Decker, ACL, and Robert Coles, ACL, and which marked the end of four years of unbroken publication of the bulletin. A reproduction in this copy of the first issue, that of November, 1932, clearly illustrated the progress which had been made.

Colonel Roy W. Winton, ACL, League managing director, was the club's guest of honor for the occasion and spoke briefly on a program which presented *Solar Eclipse of August, 1932*, by Charles and Robert Coles, ACL; *Skiing*, by Thomas Kircher, ACL; *Pinch Hitter*, by Charles J. Carbonaro, ACL; *Egypt and Palestine*, by Sidney Moritz, ACL, and *Bryce Canyon Wonderland*, by Frank Gunnell, ACL, all of them productions by club members. A musical accompaniment was played on double turntables with the pictures. Walter Mills, ACL, was chairman of the committee in charge of Guest Night arrangements and had the cooperation of Dr. George Rohdenburg, ACL, and Mr. Kircher. The Metropolitan Motion Picture Club, which was recently incorporated as a membership body, was first organized in February, 1929, under the leadership of the distinguished naturalist, Dr. Raymond L. Ditmars, who is still associated with it as honorary president.

Footlight film ■ In Indianapolis, Ind., a group working under the name of Super Art Productions recently has completed *Rhythm and Romance*, a two reel, 16mm. drama of a boy from the small town who makes good in the big city on the stage—but does *not* forget his hometown sweetheart. W. Stuart Bussey, ACL, and Frank M. Fitch, jr., were in charge of production, with Mr. Bussey handling the direction and camera work. Leading rôles were played by Marge Brullow and Louis Uhle, while Mary Kaiser is featured in a dance sequence shot on the stage of the Uptown, an Indianapolis theatre. It is proposed that the picture be given theatrical presentation in that house sometime during the Christmas holidays, with the proceeds to be donated to local charities, reports Mr. Bussey.

Latest news of group activities and photoplays

New Jersey's best ■ Twelve films in all—eight on 16mm. stock and four on 8mm. — reached the finals of the state wide contest for New Jersey amateur movie makers, recently concluded by the *Newark Sunday Call* and the Cinema Club of the Oranges, according to the report of W. T. Vanderlipp, ACL, president of that club and chairman of the contest's board of judges. First place and an award of fifty dollars in cine equipment were given to W. R. Pemberton, jr., ACL, of Newark, for his 8mm. travel study, *Freighter Voyaging*. Second and third awards, of ten dollars each, went to Lillian D. Reed, of Nutley, for her 16mm. story film, *A Visit to Fairyland*, and to Dr. Sigmund Kaswiner, of Newark, for his 16mm. promotional picture, *Cardiac Home*. Honorable mentions were given the efforts of Howard Fox, J. H. Shannon and Joseph Breivogel by the judges. Members of the Orange club were barred from competition.

Boston shoots ■ *How Not to Take Movies* was the subject of a 100 foot, 16mm. skit filmed by members of the Boston Cinamateur Club at a recent meeting which featured interior lighting tests. Fifty feet of Type A Kodachrome rounded out the experimental footage exposed. *Dinghy Sailing at M. I. T.*, a sports reel in color, by Dr. Alan Lukas and Ralph Aubin, was featured in the projection session, which was brought to a close by *Launch of the Queen Mary*, a topical subject in black and white from the League's Club Library. Plans are being discussed for a cooperative club film of the city of Boston.

Toronto elects ■ In Ontario, Canada, new officers of the Toronto Amateur Movie Club have been announced by that body as follows: Alan Moorhouse, ACL, president; S. F. D. Sampson, ACL, vicepresident; J. R. Biggart, ACL, secretary treasurer; C. R. Shorney, program chairman; George Aldcroft, production chairman; W. Prissick, membership chairman; Leslie Thatcher, ACL, advisory chairman; G. A. Downey and Narcisse Pelletier, ACL, publicity and editorial chairmen. As this [Continued on page 557]

Super Art Productions

Making "Rhythm and Romance", work of Indianapolis group

R. I. Nesmith & Associates

Ten years of MOVIE MAKERS

On its Tenth Anniversary, the staff of MOVIE MAKERS thanks all those good friends who have made its task so pleasant.

Arthur L. Gale

Editor.

Closeups with Eight

CLARK WALTER MILLS, ACL

Easy methods for making most from 8mm.'s near range

THE 8mm. movie maker now has behind him a good four years of interesting experiments and thousands of successful films that have been made all over the world and under all filming conditions. Aided by numerous developments and recent technical improvements, he can turn out excellent motion pictures that continually surprise the veteran movie enthusiast. The small size and simple operation of the 8mm. camera have made it an easy traveler, and it has wandered far from home. At home, it has been accepted as a standard camera for amateur and even industrial and publicity work.

Although the 8mm. camera can handle any camera distance, from closeup to long shot, closeups (particularly in color) are more attractive on the screen. Detail is naturally clearer and more interesting in a close shot than in a distant one. For that matter, this is true of any film width. In the case of indoor filming, closeup shooting has the added advantage of requiring less lighting equipment and less space in which to work. You may not have space in the apartment living room to make full medium shots, but you always can make closeups.

Lighting equipment for this interior work need not comprise more than four flood lamps in separate reflectors, each with a suitable clamp for easy adjustment. This number is convenient to handle and gives sufficient workable light for modeling, as well as flood lighting. It is advantageous also to include a spotlight. Should a certain scene include a table lamp or similar fixture, it will be found helpful if the bulb is replaced with an extra flood lamp. If Kodachrome film is to be used, the new Photoflood No. 2, which gives about twice the light of the familiar No. 1, can be substituted.

In photographing extreme closeups on black and white, it often happens that only one light will be needed. If this light is close and if the small object is placed, perhaps on a table, next to a light colored side wall, there will be sufficient illumination and back lighting to produce a good result. The lens would be set at $f/5.6$.

Exposure problems are one of the smallest worries in this type of filming, and an exposure meter, although helpful, is not at all necessary. As we are working within a small area, the distances from the camera to the subject are for the most part in inches and, at the most, not more than four feet. Correct exposure, in reference to the number of lights and the distance from the subject, has been carefully computed in chart form and is included in the camera instruction booklet. If the chart is followed exactly, the closeups can be made easily, and absolutely no trouble with underexposure and overexposure will be encountered.

With very few exceptions, the flood bulbs should be placed very close to the subject—within a foot or two. Never try to place the lights too close to an actor's face, as eye strain that is produced will result in an awkward and self conscious portrait. However, in general, placing the lights very close to the scene makes for a brilliant and sparkling picture, which has the advantage of permitting you to set the lens at a small diaphragm opening. A small piece of gauze or similar material thrown over the reflectors will soften harsh illumination and will help to give depth to the finished picture.

It is well to work with the lens stopped down to $f/8$ or $f/11$, for sharper and noticeably clearer pictures will be made because of the increased depth of field. After a little experimenting, it will be found that, because of film latitude, once an exposure is computed for a given closeup sequence in black and white work, if the lights are kept at about the same distance for subsequent closeup scenes, the same lens setting will hold good for the entire picture. If the distance from the subject to the light is the same in all scenes, a variation from light to dark colored subjects seldom will require a change in the exposure. This is one reason why interior closeup filming is so easy. Of course, this does not apply to color filming, where changes in diaphragm settings are required for variation in colors.

For closeup work, the camera should have a focusing lens, although a fixed focus lens with a portrait attachment will serve. But, as the working distances are from two feet up to four feet, the flexibility of a focusing lens is very important. Some setups may involve eighteen or perhaps twenty inches from the camera to the subject, which precise field may not be covered in your lighting table. However, don't let working at odd distances hamper you, as allowances in exposure are easily made. Much better results will be obtained by making the best possible lighting arrangement, and then finding the correct exposure, than by setting the lights to produce predetermined exposure.

For the purpose of making ultra closeups, nothing is more convenient than a small metal titler. With its aid, it is possible to photograph objects that have an area of only two or three inches, and yet they will completely fill the picture on the screen. This often results in an artistic rendition of texture and minute detail, and the facility with which these ultra closeups can be made opens a wide territory to the imaginative 8mm. movie maker.

The titler comprises a metal

[Continued on page 554]

A shot like this can be made easily with a cine titler

R. I. Nesmith and Associates

How movie tools developed

EARL THEISEN

SELF expression is one of the great urges in life. The artist who works with a canvas and oil paint and the man who operates a movie camera are striving alike to express and recreate their feelings in graphic form.

Throughout history, there are many evidences of a desire to reproduce personal experiences and to invent suitable equipment for doing this with the illusion of motion. On a cave wall in Altamira in Spain is the earliest known example of this effort. On the wall of this prehistoric dwelling is a pictorial representation of a bear with two sets of legs. The legs are drawn in two positions of a running stride, and evidently represent an attempt to depict motion pictorially.

Subsequently, many systems were introduced which served to recreate stories of home life or of heroes and folklore. Such were the shadow shows which are thought to have existed as early as 5,000 B.C. The shows, found even today in many countries, consisted of throwing a movable shadow to a piece of cloth that served as a screen. The puppets and effigies used in the shows had jointed bodies so that they could be moved by an operator. In early times, the show was presented in the open on a hillside, by means of a bonfire and a screen.

The simple shadows of animals and men that have been thrown on the walls of the homes, since man first had a home, indicate clearly the wish for an animated picture medium.

Here follows a chronology of subsequent efforts down to the successful cameras and projectors of the present period.

1640. Athanasius Kircher is credited with inventing the magic lantern, which he called the Magia Catoptrica. The magic lantern for the next two hundred years was used as an entertainment device in the home. Pictures of the devil with his trident, and scenes of human activities painted on glass and other mediums, were projected on a wall and were accompanied by suitable descriptive stories. The slide shows evolved to elaborate dramatic presentations, and the operator attempted to make the pictures move by moving the lantern while the image was being thrown on the wall. A favorite stunt was to throw a terrifying picture of a monster on the wall and then to move the lantern toward the screen to increase the size of the picture, thus giving the effect that the monster was approaching. In later years, before the photographic movies were introduced, as many as seven lanterns were used to elaborate the showing.

1824. Peter Mark Roget read before the Royal Society a paper that described the principle of persistence of vision. This ability of the eye to retain an image for a fraction of a second, until the image is replaced by another, makes possible the illusion of motion on the screen.

Two years later, the thaumatrope was invented. This small device consisted of a cardboard disc with a picture of a bird on one side and a cage on the other. When the disc was spun by means of strings, it produced the illusion that the bird was in the cage. This toy was very popular and was the first to make use of the principle of persistence of vision.

1831. J. A. F. Plateau invented the phenakistoscope, the first device that could show pictures in motion. Even though it could present only hand drawn pictures, this toy like contraption may be said to be the first home movie.

The device consisted of a pair of discs mounted on a shaft, the rear disc bearing a sequence of drawings, while the front disc had a corresponding series of slots through which the pictures were viewed when the discs were revolved. So obsessed was Plateau in making pictures move that, through his endless peering into his numerous movie contraptions, he finally lost his eyesight. Undaunted, he carried on with the aid of his wife.

Subsequently, scores of inventors devised a great variety of devices which used hand drawn pictures for showing motion. Scenes from home life, such as any modern movie maker would choose, were carefully drawn out, pose by pose, on strips of paper two or three feet in length, to be used in these machines. The Daedaleum, or Wheel of Life, invented by William George Horner in 1834, was typical of this period.

1861. On February 5, Coleman Sellers patented the first home movie device that utilized photographic images. It was called the kinematoscope. Because photographic emulsions were [Continued on page 544]

R. I. Nesmith and Associates

Part of the equipment shown at historical exhibit, ACL Tenth Anniversary Dinner

SOME ONE YOU KNOW IS STANDING BEFORE

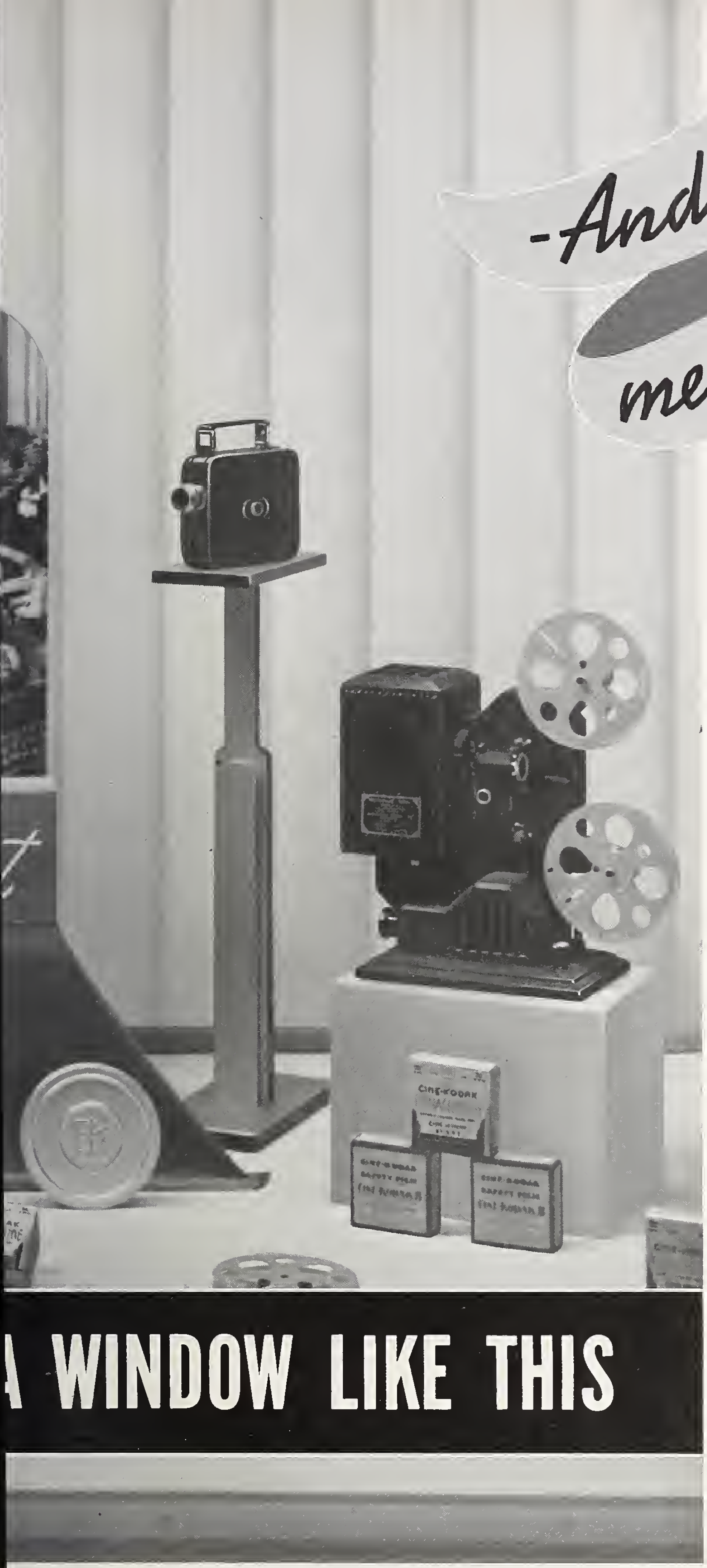
FRIENDS and relatives who have seen your movie shows . . . distant members of the family to whom an exchange of movie records would be a priceless privilege—surely you know those who would be more than delighted to find a Ciné-Kodak or a Kodascope under their Christmas tree.

And you are giving so much this year when you decide upon home movies.

In the 8 mm. field there's full color filming, indoors or out, with either regular Kodachrome or the new Type A Kodachrome. They can start a colorful film diary on Christmas morning if you include a roll or two of film and a $5 Kodaflector in your gift list. In the 16 mm. field there is a greater film range including, of course, Kodachrome, and outstanding equipment—the versatile Magazine Ciné-Kodak; the efficient Ciné-Kodak K; the brilliant and economical Kodascope E; the de luxe Kodascope L.

Give lasting happiness. Give home movies. Eastman Kodak Company, Rochester, N. Y.

-And for some member of your own family



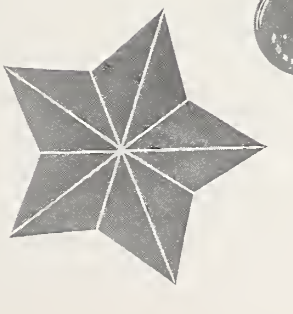
WINDOW LIKE THIS

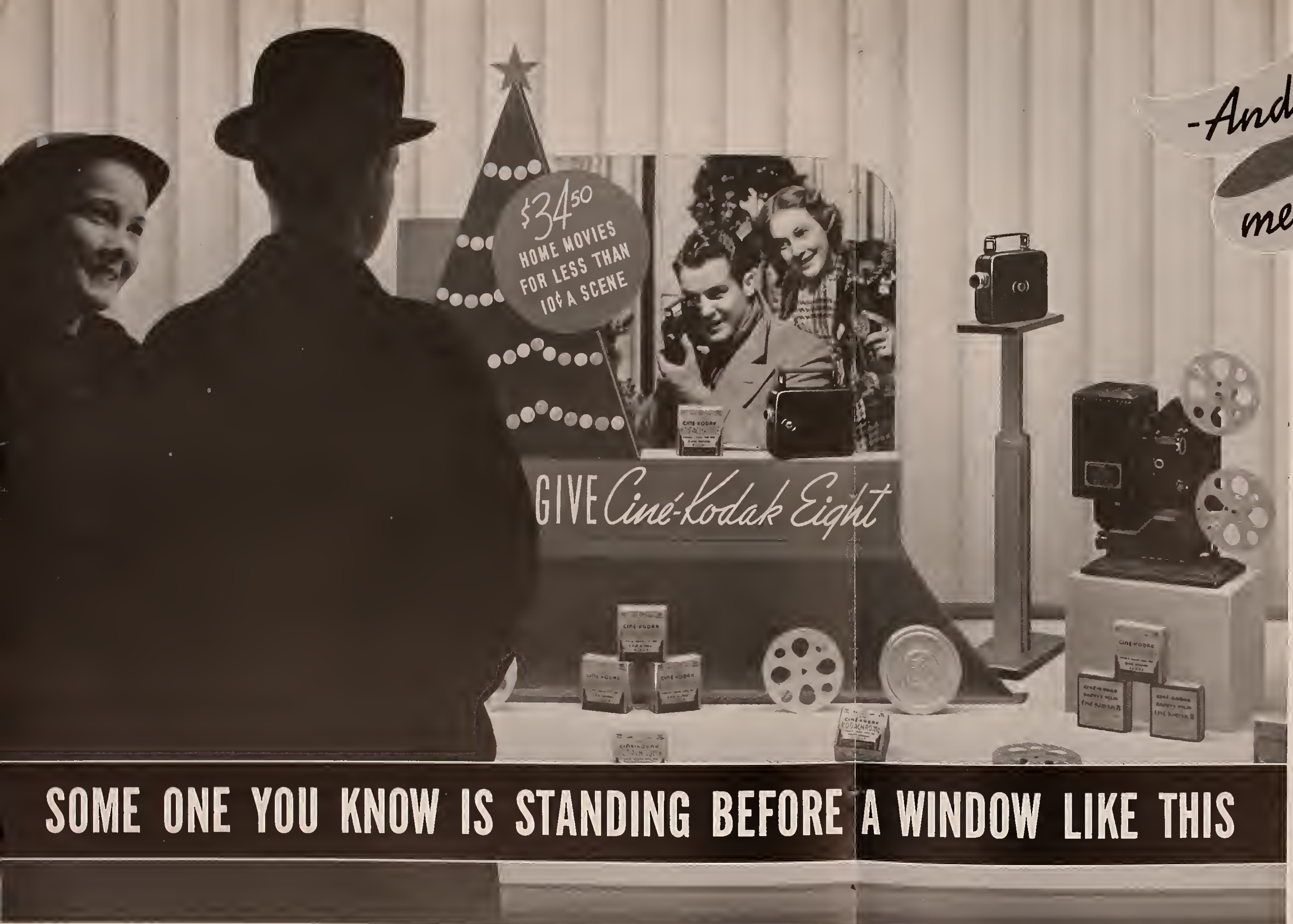
8 mm.

Ciné-Kodak Eight, Model 20, with *f*.3.5 lens	$ 34.50
Ciné-Kodak Eight, Model 25, with *f*.2.7 lens	45.00
Ciné-Kodak Eight, Model 60, with *f*.1.9 lens and case	91.50
Kodascope Eight, Model 20	26.00
Kodascope Eight, Model 40, with 200-watt lamp	39.00
Kodascope Eight, Model 80, with 300-watt lamp and case	97.50
Color Filters for Ciné-Kodaks Eight, depending upon the camera model $1.00 to	1.50
1½-inch telephoto lens for Ciné-Kodak Eight, Model 60	37.50
Kodak Pocket Range Finder	7.00
Carrying cases for Ciné-Kodaks Eight, Models 20 and 25	3.50
Carrying cases for Kodascopes Eight, Models 20 and 40	3.00
No. 20 screen for Kodascope Eight, Model 20	3.00
No. 25 screen for Kodascope Eight, Model 40	4.00
No. 0 screen for Kodascope Eight, Model 80	8.00
Kodascope Eight Rewind	6.00
Kodascope Eight Film Viewer	12.50
Ciné-Kodak Titler	6.50
Kodaflector	5.00
200-foot aluminum reels	.40
Film cans for 200-foot reels	.40
Ciné-Kodak Eight Panchromatic Film	2.25
Ciné-Kodak Eight Kodachrome Film	3.75
Ciné-Kodak Eight Kodachrome, Type A, Film	3.75

16 mm.

Magazine Ciné-Kodak, with *f*.1.9 lens	125.00
Magazine Ciné-Kodak, including combination case for camera and accessories	137.50
Ciné-Kodak, Model K, with *f*.1.9 lens	112.50
Ciné-Kodak, Model K, with *f*.1.9 lens and case	125.00
Kodascope, Model E, with your choice of lens and lamp, from	54.50
Lenses: 1-inch *f*.2.5, 2-inch *f*.1.6, 2-inch *f*.2.5, 3-inch *f*.2, 4-inch *f*.2.5.	
Lamps: 400-, 500-, and 750-watt.	
Kodascope, Model L, with your choice of lens and lamp, from	184.00
Lenses: 1-inch *f*.2, 2-inch *f*.1.6, 3-inch *f*.2, and 4-inch *f*.2.5.	
Lamps: 400-, 500-, and 750-watt.	
Adapter for telephoto lenses	6.50
2-inch *f*.3.5 lens	38.50
2½-inch *f*.2.7 lens	53.50
3-inch *f*.4.5 lens	38.50
4-inch *f*.2.7 lens	68.50
4½-inch *f*.4.5 lens	53.50
6-inch *f*.4.5 lens	78.50
15 mm. wide angle lens for Ciné-Kodak K	45.00
Kodak Pocket Range Finder	7.00
Ciné-Kodak Tripod	32.50
Ciné-Kodak Tripod Truck	45.00
Carrying case for Kodascope L	15.00
Carrying case for Kodascope E	12.00
Kodaflector	5.00
400-foot aluminum reels	.60
Film cans for 400-foot reels	.60
Ciné Album for storing 400-foot reels	3.50
Ciné-Kodak Titler	6.50
Kodascope Film Viewer	12.50
Kodascope Rewind and Splicer	7.00
Color filters for use with Ciné-Kodaks, depending upon camera model $1.50 to	3.75
Ciné-Kodak Panchromatic Film:	
50-foot roll	3.25
100-foot roll	6.00
200-foot roll	12.00
50-foot magazines	3.50
Ciné-Kodak Safety Film, 100-foot roll only	4.50
Ciné-Kodak Super Sensitive Panchromatic Film:	
50-foot roll	4.00
100-foot roll	7.50
200-foot roll	15.00
50-foot magazine	4.25
Kodachrome Film, regular or Type A:	
50-foot rolls	4.75
100-foot rolls	9.00
200-foot rolls	18.00
50-foot magazines	5.00





SOME ONE YOU KNOW IS STANDING BEFORE A WINDOW LIKE THIS

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Ciné-Kodak, Model K, with *f*.1.9 lens	112.50
Ciné-Kodak, Model K, with *f*.1.9 lens and case	125.00
Kodascope, Model E, with your choice of lens and lamp, from Lenses: 1-inch *f*.2.5, 2-inch *f*.1.6, 2-inch *f*.2.5, 3-inch *f*.2, 4-inch *f*.2.5. Lamps: 400-, 500-, and 750-watt.	54.50
Kodascope, Model L, with your choice of lens and lamp, from Lenses: 1-inch *f*.2, 2-inch *f*.1.6, 3-inch *f*.2, and 4-inch *f*.2.5. Lamps: 400-, 500-, and 750-watt.	101.00
Adapter for telephoto lenses	6.50
2-inch *f*.3.5 lens	30.50
2½-inch *f*.2.7 lens	53.50
3-inch *f*.4.5 lens	38.50
4-inch *f*.2.7 lens	60.50
4½-inch *f*.4.5 lens	53.50
6-inch *f*.4.5 lens	70.50
15 mm. wide angle lens for Ciné-Kodak K	15.00
Kodak Pocket Range Finder	7.00
Ciné-Kodak Tripod	32.50
Ciné-Kodak Tripod Truck	15.00
Carrying case for Kodascope L	15.00
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How lenses were refined

R. FAWN MITCHELL

Additional facts about lens design and practicality

IN the discussion, *An optical excursion*, in November MOVIE MAKERS, I outlined the basic elementary factors from which the modern, high speed, highly corrected lens has been evolved.

Historically, like automobile design, where a motor and other equipment were attached to the horse buggy, lens design consisted of adding one more element to correct this, and another to correct that. The "traditional" trend of lens design followed the path of correcting each element to get larger apertures. It was not uncommon for some of these early lenses—very poorly corrected, by modern standards—to have ten or more glass elements.

Obviously this could not go on indefinitely, so that it was only a matter of time before a new conception was developed. To H. Dennis Taylor belongs the credit for perceiving that the many lens aberrations could be cancelled automatically by *separating* the individual glasses instead of cementing them together.

It is interesting to glimpse behind the scenes for a minute and to see just how such a fundamental idea was reasoned out. Mr. Taylor hit on the basic conception that really only two elements were needed—one a collective, or positive, lens and the other a dispersive, or negative, lens. Reasoning from the Law of Conservation of Energy, as well as drawing on his years of optical research, he saw that the aberrations—or lack of correction—would be eliminated if the two lenses were of equal, or approximately equal, power. Two lenses of equal power—one positive and one negative—placed together obviously would cancel each other, but by separating the two elements, the combination could form a real image. The greater the separation, the greater the power of the combination. This was an idea of inherently fundamental importance and was the first radical step taken away from traditional lens design.

The principal benefit of this new arrangement was that curvature of field, which had been so troublesome up to this time, easily could be corrected, irrespective of the amount of the separation, while allowing an almost unlimited choice of refractive indices. To correct distortion, which is dependent upon the position of the diaphragm, Mr. Taylor hit upon a further happy expedient and modified the fundamental two element ideal by dividing the collective (positive) lens and placing one part of the positive element on one side and the other part of the element on the other side of the negative element. This gave additional help in controlling chromatic aberration (remember the large choice of refractive indices of glass that could be used), and for the first time made it possible to achromatize a lens without first achromatizing each separate element.

For the reasons outlined above, it was also possible to correct spherical aberration and coma by suitable choice of curves for the various elements. Astigmatism was corrected by the location of the stop, it being further from the collective elements than from the dispersive element, as is shown in Fig. 1.

Thus, by balancing the curvatures properly, refractive indices, dispersion and spacing between glasses, all the important lens aberrations have been corrected, by using only three elements. Furthermore, they have been corrected so well that this lens will focus detail as small as can be registered on any negative emulsion; in fact, this construction is used in the very expensive process lenses used in the highest grades of engraving work.

The triplet design has three other advantages. First, no cement is used, so that possible cement deterioration is eliminated. Second, with only three glasses, there is less loss, due to internal reflections, and also the elements employed are comparatively thin so that light is not absorbed by excessive thickness of glass. The "brilliancy" of the image obtained with this type of lens is well known. Third, unique skill has been involved in making use of the air spaces between the glasses; they actually act as lenses. For instance, if the front glass is moved forward, leaving the other two as is, the focus is changed. In fact, a "front focusing" model of the one inch *f*/3.5 lens was put out several years ago.

A more interesting property, made use of in some models designed for studio portraiture, is the controllable diffusion. If the middle element is moved closer to the rear glass, leaving the other dimensions alone, spherical aberration is introduced. The greater the displacement of the center element, the greater the diffusion.

In practice, the triplet principle is modified in fast, telephoto and special lenses. The functions of any one of the three fundamental glasses can be split up between two or more glasses. This is necessary to carry through the corrections of the triplet still further than is needed for an aperture of *f*/3.5 or so.

Fig. 2 illustrates diagrammatically how a negative element, strong in proportion to the positive element (or elements), reduces the physical length of a lens while retaining the same focal length. Thus, in Fig. 2, the ordinary optical construction would require a lens in which the front element would be a distance of AC from the film, whereas the telephoto construction shortens the lens to a length BC. The advantage of such compactness is obvious. Also note

[Continued on page 547]

Schemes of modern cine lenses that are here outlined

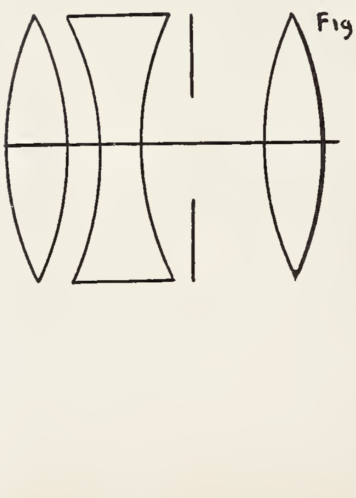


Fig 1

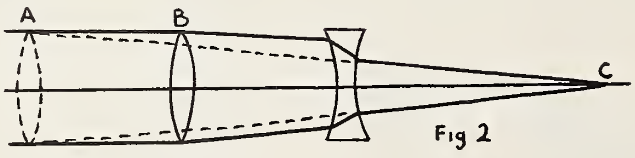


Fig 2

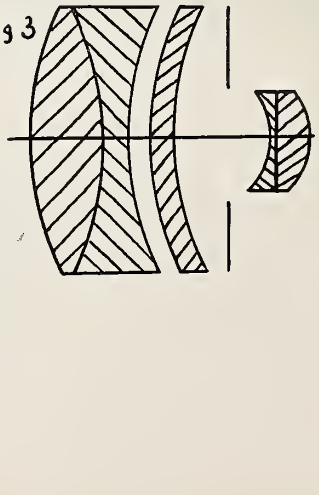


Fig 3

New reversal film gives the choice of three emulsions

News of the industry

RUSSELL C. HOLSLAG, ACL

New B. & H. 8mm. ■ Two new 8mm. cameras in the lower price range recently have been announced by the Bell & Howell Company, 1801 Larchmont Avenue, Chicago. Both these are double eights and are equipped with a hand set footage dial and a 12½mm. *f*/3.5 lens. The lens mount is the same as in other Filmo 8mm. cameras, so that objectives may be interchanged as desired. One of the new cameras, with 8, 16, 24 and 32 speeds at a price of $49.50, will be designated the Model 134-C; the other, with 16, 32, 48 and 64 speeds at a price of $54.50, the Model 134-D.

8mm. Ditmar ■ The importation of a new 8mm. camera of high quality is featured by Burke & James, Inc., 223 West Madison Street, Chicago. This is the Ditmar, which is designed to run the regular 25mm. daylight loading spools of double 8mm. film. The spring motor is silent and powerful and is designed to pass 15 to 20 feet of film at one winding. Threading is simple, while an accurate gate and pressure plate mechanism provide sharply defined pictures. The lens mount is set in a recess, which acts as an effective sunshade. Standard *f*/1.8 and *f*/2.5 objectives are obtainable, while portrait attachments and 2x and 3x telephotos may also be had. A special sliding eyepiece is provided in the finder for parallax compensation, and a sliding button controls the changes of lens aperture. Two operating speeds, 16 or 32 frames a second, are available and the speed may be changed without stopping the camera. A hand crank is also provided for single frame pictures. The camera is compact in shape and has leather covered finish with chromium trim.

Victor expands ■ The manufacturing facilities devoted to the production of the well known Victor Animatograph line, in Davenport, Iowa, recently have been expanded to take care of the demand for greater production of this popular apparatus. It is said that the Victor facilities have been nearly doubled in this new expansion.

Wrico titler ■ One of the most interesting and practical developments among the cine accessories recently introduced is the new Wrico Lettering Set, made by the Wood-Regan Instrument Company, Nutley, N. J. This set meets, in a most effective way, the amateur movie maker's need for an aid in preparing his own title lettering. The set is made especially for this work, and every feature of its construction is well adapted to the purpose. Its use requires no previous experience in lettering, yet the titles produced are perfect in all respects and provide a uniform, neat appearance which is impossible to gain with ordinary freehand lettering. The Wrico Lettering Set No. 20, which contains all the equipment necessary for titling work, comes packed in a handsome wooden box, and the durable materials of which it is made will last indefinitely. The set is made by the well known manufacturers of Wrico Lettering Guides.

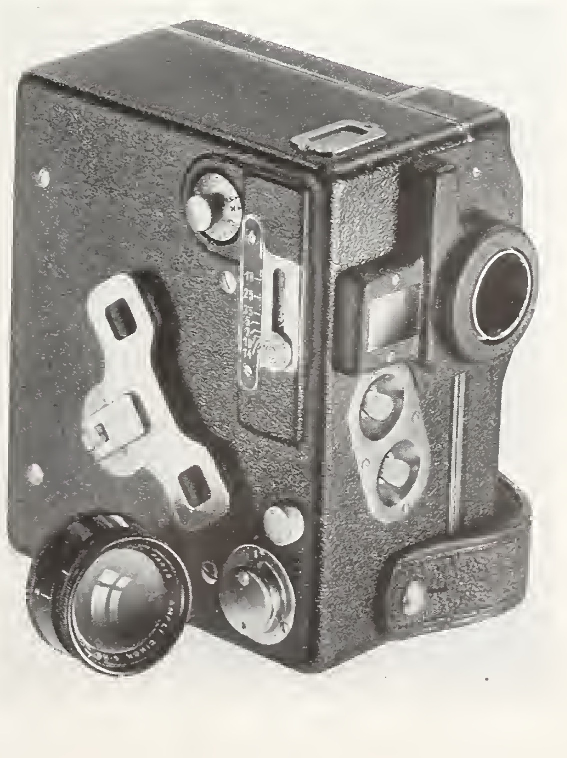
Answers the query "What's new?" for amateur and dealer

Univex eight ■ A new item which attracted considerable attention at the recent exhibit of historical and current amateur movie cameras, projectors and film, held by the League at the Hotel Roosevelt, was the Univex Cine 8 camera, with its companion 8mm. projector, made by the Universal Camera Corporation, 32-46 West 23rd Street, New York City. The outstanding feature of these new machines is their low price, the camera listing at $9.95 and the projector at $12.50. The Univex camera is light in weight, with a cast case having black finish and oxidized silver trim. Standard lens equipment is Ilex *f*/5.6, but other lenses, including fast and telephoto, are available for use in the interchangeable mount. A special single eight film is used, which sells, in the 30 foot length, for sixty cents. The threading is simple, no sprockets being used in the camera. The companion 8mm. projector takes regular 200 foot spools of 8mm. film and is equipped with framing and tilting devices, as well as separate controls for lamp and motor. Standard double sprocket feed and take-up design is used and a one inch projection lens is provided.

[Continued on page 563]

Ditmar 8mm. camera features number of aids for filming

Burke & James, Inc.



The Ten Best for 1936

[Continued from page 523] meda, etc.) in California has two. Other cities have one each.

Of the general class, both Ten Best and Honorable Mention, there are three films of the family record type; one of the travel type; two of the scenic type; five of the documentary record type; and four photoplays, one of which is also of the cine experimental and of the family record varieties. Of the special class, Ten Best and Honorable Mention, one was cast in the photoplay form, while the others were either of the record or of the publicity types.

Detailed reviews of the films follow.

To make a family film of youngsters that is entertaining to a stranger is quite an achievement, but to make a family picture that is, at the same time, an almost perfect record of the really human qualities of children and parents is a truly notable accomplishment. This is what John Martin has done in his picture, *A Day with the Young Martins.* His theme is the "from dawn to dusk" story of the Martin family, and he wisely has avoided emphasizing the clock or other obvious methods of holding the picture together. Instead, the story seems to tell itself, and the little episodes that must have been planned, or they could not have been caught with the aid of lighting equipment and camera, have a natural, sincere quality that is very welcome. The picture rates chiefly because of its delightful treatment, but technically it is entirely adequate.

Frances Christeson and Harry Merrick have shown in their film, *Architecture and Fine Arts,* what can be done with the motion picture camera by sensitive, yet systematic, movie makers. Produced under the supervision of A. C. Weatherland, dean of the College of Architecture and Fine Arts at the University of Southern California, the picture shows students at work and gives glimpses of class room technique in teaching most of the fine arts. Although no section of the film is long or detailed enough to serve the purpose of teaching, the film, as a whole, gives a very clear and concise picture of the scope of the work of the architecture and fine arts college of the University of Southern California. Technically and cinematically, this record is superb; beautiful compositions, carefully selected and composed scenes, combined with titles of distinction, make it a truly outstanding production. Included in the picture, that is for the most part in black and white, are color sequences of stained glass windows.

East Coast, produced by the Rockville Cinema Club, is a picture that keeps the most jaded critic interested in its outcome. Carefully staged and convincingly acted, this story of the eternal triangle has an original twist. The production shows painstaking attention to story detail and photography, that leaves with the audience the feeling of having seen a finished picture. The acting was far above the average and shows the result of the club's previous experiences in making this type of picture. The sets were largely laid out of doors, but, both indoors and out, the exposure and lighting were handled in a most finished and competent manner. Smooth and logical, the scenarization, editing and titling represent a vast amount of careful preparation.

Moroccan Cities, by Gwladys Sills, stands out among amateur travel studies for its very real achievement of that intangible something—glamor. The mystery of shrouded Arabs, the glare of white buildings in the sunlight and the fascinating pulsation of life in the native markets, all these have been captured with marked success in this one reel record. To accomplish this, Mrs. Sills has brought into play a fine feeling for human interest and a genuine flair for the dramatic in photographic treatment. Her material has been critically edited and sensitively titled, with that selectivity which is an artistic necessity in all real creative work.

A perfectly delightful holiday in personal filming, replete with humor and imagination, is the comedy, *Nite Life,* produced by J. Kinney Moore, entirely in Kodachrome and, what is more, almost entirely in interior Kodachrome, by artificial light. Mr. Moore, in his work, refutes the contention, sometimes heard, that the amateur should be wary of film comedy. And, beside negotiating this pinnacle successfully, the producer has added an outstanding technical handling of Kodachrome, as well as a highly diverting and intelligent use of the various camera illusions it is possible to produce with the aid of modern 16mm. equipment. The obvious zest and pleasure with which the actor producer entered into the creation of this film add immeasurably to its value as a genuine document of personal filming achievement. Examples of carefully planned and executed trick photography follow one another in such rapid succession in the film that the spectator is left time only to gasp. However, these tricks are not executed simply for their own sake, but strictly in accordance with the furtherance of the plot. It must be said that, in the second part of the film, the author does yield slightly to the temptation of attenuating the action somewhat in order to spin out his bag of tricks. But the film as a whole is so delightful that any audience could easily forgive this small shortcoming.

On Every Hand, filmed by William L. Zeller, is one of those pictures, not infrequently found in the Ten Best selections, that make one marvel at the producer's infinite patience and deep knowledge of a special field. This is a study of those birds that can be found on every hand in the countryside and in the fields of America but which the average man fails to recognize, or even see, much less lovingly study as does Mr. Zeller. In this finished picture, there are many closeups made in the open of birds and their nests, which represent such a colorful variety of bird life as to give one something of a feeling of awe for the patience that Mr. Zeller must have exercised to catch the scenes. The picture is all in color, which brings a revelation of its own, and the continuity and titles are contrived to make an essentially record picture into good entertainment. For this quality, credit goes chiefly to the extremely well written titles and the editing.

In *Two Weeks,* W. W. Champion has contrived that rare and refreshing thing—a personal record picture implicit with general human interest. Telling the story of a fortnight's pack trip with friends through Yosemite, the film gets off to a flying start with a delightfully detailed sequence of camp preparations. With complete naturalness, we are made acquainted with each of the vacation party. When, in good time, they set off down the trail, we feel quite sure that these people will prove of more interest than the locales that they will visit. Mr. Champion does not disappoint us, as he continues with an adroitly spun pattern of personalities and places. Crisp, steady and effectively angled, the photography of the film, in both monochrome and color, is of able assistance to the imaginative treatment.

As We Forgive, produced by the Religious Motion Picture Foundation and filmed by Kenneth F. Space, with the technical assistance of Dan Lindsay, is a fine example of weaving the theme of the picture into the very warp and woof of its photographic material. The makers of this photoplay had a sincere and simple theme to present, and the excellence of their presentation lay in the fact that every detail of the handling, both in technique and continuity, was done sincerely and simply. It is this carefully worked out unity of treatment with theme that enables the film to serve as a model for producers of photoplays with a message. The filmers particularly are to be congratulated on their handling of child actors, one of the most difficult problems to be solved successfully in any field of the drama. From the technical point of view, we may remark the well exposed interiors, in which the lighting was carefully planned to give the effect of normal illumination; the fine photographic quality displayed in the closeups and camera angles and the smooth unity of the entire technical handling.

[Continued on page 548]

The League has a birthday party

[Continued from page 529]

and determination of Hiram Percy Maxim in his many efforts in civic and scientific fields and referred to Mr. Maxim's hopes for the Amateur Cinema League. "I know," he said, "that the vision of our Founder has come true. Mr. Maxim's interest in the affairs of the League never lagged. May the spirit of our Founder continue to guide us in the work of our great ACL."

Dr. Mees spoke on behalf of the ten thousand persons engaged, throughout the world, in making and selling film for use in amateur cinematography and for the others in the business of supplying amateur movie equipment. He quoted a 1920 report on the possible developments in the art of photography, which said that "it is possible that amateur cinematography may be a commercial success. It will be necessary to use a small picture with reversal of negative to positive." Dr. Mees referred to the founding of the League by Mr. Maxim, quoting from a letter of Mr. Maxim to the former vice-president of the Eastman Kodak Company, the late L. B. Jones, ACL, in which Mr. Maxim asked that somebody come to Hartford to address the amateur movie club in that Connecticut city and expressed his belief that an international amateur movie body could be established.

"I think, from that first suggestion on," said Dr. Mees, "that the League has undoubtedly done more than any one organization to promote the interest of America and the world in personal motion pictures. It is useful to local clubs. It is a concentration point for information flowing two ways—from manufacturers to movie makers and from movie makers to manufacturers. It makes the products of the manufacturers and the proper use of the products familiar to the user. In the other direction, the ACL is in a position to convey to the manufacturer the attitude of the users, and it has never hesitated to do so. The League has definitely succeeded in doing a job to the benefit of anybody interested in amateur motion pictures."

Mr. Dombroff referred to the small beginnings of the now extensive amateur movie industry. "In 1924," he said, "I purchased my first three amateur movie cameras for commercial sale. When I placed that order, I thought I had overstepped the bounds as a prudent buyer and had bought more equipment than I should have. Since that time, there have been put into use more than five hundred thousand pieces of amateur equipment, and amateur cinematography has become imbedded into the hearts of the people not only as a hobby, but as a means to perpetuate the past for the future."

Governor Milliken traced the cooperative efforts of the League and the theatrical motion picture industry in the last decade. In conclusion, he said,

"I have a notion that this ACL of yours has been rendering and will increasingly render valuable social service—even more valuable because it is unconscious—because you have been fostering interest in the wholesome use of leisure time, and a use that involves definite effort on the part of the participant."

Mr. Vallee reviewed the events that had led him to an interest in personal movie making, revealing that he had been, in his earlier days, a projectionist in a small movie theatre. He told of filming friends in Hollywood and then referred to his interest in the production of pictures in which he has been starred. "Some of the scenes in *Sweet Music*," he said, "are my suggestion, and the final one of 'Fare thee well, Annabelle' was entirely my idea." He referred to his filming in color, which brought him recognition from the Toronto Amateur Movie Club, of Toronto, Canada, as a life member.

Mr. Vallee indicated his hope that he might deal with all phases of picture making in the theatrical studio world. "I would be more than happy," he said, "to go into the cutting room for a year or more (and I think that is the only way one can honestly know whether he is an amateur or a professional).

"If I achieve anything out there on the Coast," he concluded, "I can thank the ACL and MOVIE MAKERS for their ideas and criticism."

Miss Brown said that she had learned how to write a terse novel because of having spent time in a film cutting room. She referred to her method, familiar to readers of this magazine, of building a reel from odd shots and titles.

"I use a sharp pair of shears on my own novels," she concluded. "Ever since my movie work, I have written dialog and have heard it on 'the set.' I say my speeches out loud. I cut them, I dramatize them, I give 'curtains' to chapters. This has taught me to give everything I touch, all the life and vitality I can give it."

Roy W. Winton, the League's managing director, introduced the speakers.

The concluding feature of the evening's program was the first showing of *The Amateur Advance*, a film prepared at League headquarters from footage lent by movie clubs, the Eastman Kodak Company and individual League members, running a little more than 1600 ft., 16mm., and containing both black and white and Kodachrome. Special introductory and concluding sequences were made by Kenneth F. Space, ACL, of The Harmon Foundation. This film took up its story several years before the commercial introduction of substandard film widths in the United States. It presented

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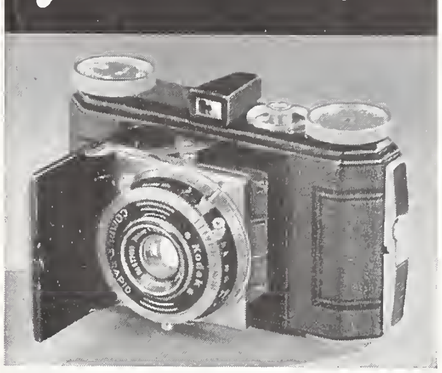

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Frame from the first 16mm. reversal film, made in 1920

the very first footage ever processed by the now universal reversal method. In these early sequences, the work of Dr. C. E. K. Mees, Dr. J. G. Capstaff and Harris Tuttle, all of the Eastman Kodak Company, and that of Mrs. Harold Gleason were shown. Then followed a large number of excerpts of the early efforts of League members, designed to show how movie making emerged from the snap shooting stage to that of what might be called primitive continuity.

The reflection of various national and international attitudes in the last decade was afforded by the scenes chosen from travel reels, family pictures, topical films and photoplays. The development of the amateur scenic picture from very tentative beginnings to the suave, finished work of the present was made clear. Passages from many of the famous amateur films of the last ten years were included in the screening.

Because of projection problems and the desire to present a continuous flow of screen pictures, neither 8mm. films nor sound films were shown. Kodachrome footage exemplifying many uses of this color medium was offered.

The most interesting feature of the anniversary celebration was the opportunity afforded members to get to know each other. Numerous comments have since come to League headquarters upon the superior and delightful types of men and women who made up the cross section of the Amateur Cinema League at the birthday party. The membership cards have, in part, ceased to be mysteries. The people who carry them are of the world's best, and they may be counted on to carry the League forward as well in the next decade as they have done in that just concluded.

How movie tools developed

[Continued from page 537]

very slow and because he had no movie camera, he photographed his children at play, pose by pose, by means of an ordinary camera. He photographed the successive phases of action by using the then popular wet plate process. The photographs were then mounted on a series of paddles which were arranged on a continuous belt. By peering through an eyepiece and turning the belt so that the paddles came into view, one after the other, the synthetic motion was portrayed. By using a twin lens camera, he made his photographs stereoscopic.

1869. Movies in book form were patented by Linnet. This form of showing movies, which was very popular as a toy, consisted of drawing pictures of various objects in progressive poses on the pages of a book. When the pages were flipped before the eyes, an illusion of action was produced.

1870. H. R. Heyl perfected a system of photographing action on a glass disc. He made movies of couples waltzing.

1877. Emile Reynaud devised the Praxinoscope, which could show movies of thirty feet in length by means of hand drawn pictures on a transparent substance.

1889. On April 9, Harry Reichenbach, with the Eastman Dry Plate Company as assignee, applied for a United States patent for making sheets of transparent celluloid for photographic emulsion support. This patent, which was granted on December 10, of this year, made possible a suitable photographic medium for making motion pictures.

On October 6, W. K. L. Dickson, who did the motion picture experimental work at the Thomas Edison Laboratories, demonstrated the first motion pictures, out of which grew the photoplay as it is known today.

1895. On March 30, Birt Acres photographed the English University boat races with his "kinetic" camera, and early in 1896 he built a projector. The film he used was the standard 35mm. width split lengthwise, thus giving two 17.5mm. strips with perforations on one side. This is the first attempt on record of using a narrow width film for reasons of economy.

1898. E. H. Amet made a narrow film camera as an economical means of taking home movies.

1899. A. Wrench, of London, patented in the United States the Biokam, a very compact apparatus which used 17.5mm. film. The advertisements of that time announced the equipment as "Animated Photography for Amateurs, a combined cinematograph and snapshot camera, printer, projector, reverser and enlarger."

1900. Reulos, Goudeau & Company, in Paris, brought out an amateur camera called the Micrograph, which used a film 21mm. wide. Instead of perforations, the film had notches along the edges. An arc lamp was used and, at a distance of twelve feet, a picture three feet wide was obtained.

Leon Gaumont made the Taschen Chrono, a small camera for the amateur, which used film 15mm. wide with central perforations. A movement made by Demeny was used.

1903. Ernemann, in Germany, put on the market the Kino, using a 17.5mm. film with a slit like perforation which was advanced by a claw movement. The technical perfection of this camera was very advanced, containing as it did a pilot pin for steadiness, an outside focus and view finder, a spiral spring for a takeup on the outside magazines and an adjusting mechanism for various speeds of the motor. A second apparatus served for projection. The equipment was demonstrated on November 7 for the Vienna Photographic Club. A year later, a second model, with more improvements, was introduced in which photography, printing and projection were combined in one device.

Another firm, in Dresden, Kretschmar, introduced a 17.5mm., equipment at this time.

1904. W. C. Parkin, in France, was granted a patent on a method of making celluloid film non inflammable by adding a soluble metallic salt to ordinary celluloid.

1905-6. The Ikonograph, a small toy projector which used narrow photographic films with wide perforations between each frame, was on the market.

1908. The Barnes camera, producing narrow width pictures, was being used for experimental purposes by the Eastman Kodak Company.

1909-10. A combined 35mm. projector and phonograph was put on the market in Los Angeles. The pictures were projected through the phonograph horn.

1911. A. F. Victor devised the first Animatograph, a circular disc arrangement for home movie projection. The pictures were arranged serially around the disc. (Victor made his first 16mm. equipment in 1923.)

1912. Thomas A. Edison offered for sale the Edison Home Kinetoscope. The film for the projector was 22mm. wide, with three rows of parallel pictures. One of the outside rows of pictures was first projected to the end of the roll and then, by turning a knob, the center row of pictures could be screened with the projector running backward. The third row was then projected. In this way, the actual length of the pictures was three times that of the film. Reductions of popular theatrical films were available. The equipment was not sold outright, a

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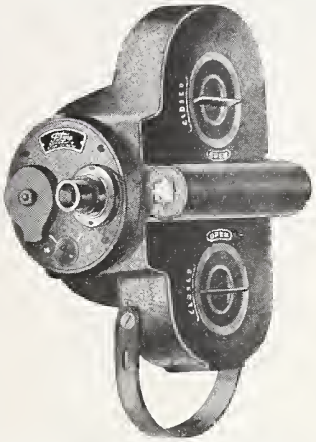

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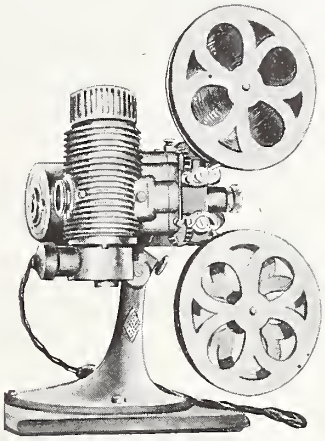

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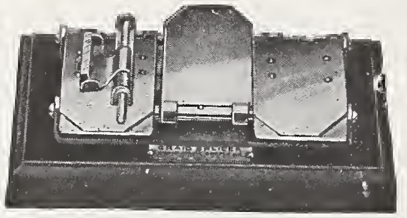

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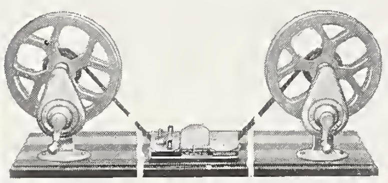

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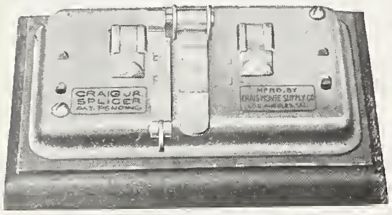

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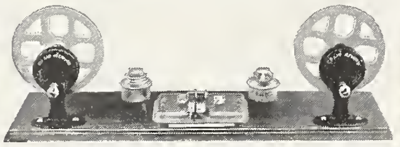

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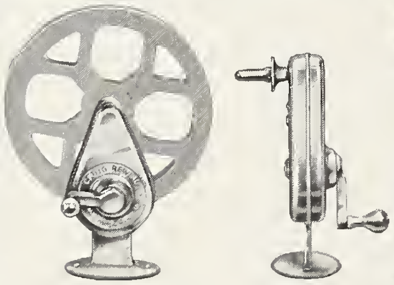

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plate on the front of the machine stating that the price gave only the right to use.

Pathe Brothers introduced the Pathe-Kok, which used a film 28mm. wide, with four perforations for each frame on one side and only a single perforation on the other. This arrangement of the perforation holes was used to insure correct threading for the inexperienced amateur. Cranking the projector also operated a magneto which supplied electricity for the incandescent lamp, which made possible home movies where power was not available, particularly in European countries.

(In 1913, Pathe introduced in this country an improved model, the Pathescope, which connected directly to the lighting circuit. The films supplied were optical reductions of current photoplays.)

The Duoscope appeared, which is credited with being the simplest of all the early amateur equipment. The negatives were printed as enlargements on paper in book like blocks, called a Biofix. The paper pictures could be viewed in an indirect viewing device called the Mutoscope.

About this time, C. Francis Jenkins introduced the Phantascope, a small outfit intended for schools. The projector sat at right angles to the screen, the pictures being projected through a prism behind the gate.

1913. In September, George Eastman introduced a 35mm. panchromatic negative motion picture film.

1914. Herman A. De Vry marketed his first portable 35mm. projector. (The first 16mm. DeVry projector appeared in 1926.)

About this time, Gennert sold the Cosmograph, a small 35mm. portable projector.

1917. "K-B" (King-Barker) introduced for the amateur a combined camera, printer and projector using 35mm. film. It was made in Los Angeles by Carl Thalhammer and sold through the department stores.

1918. In April, The Society of Motion Picture Engineers, in an attempt to standardize the variety of film widths on the market for the amateur, adopted a tentative standard of 28mm., with four perforations to each frame, known as Safety Standard.

1920. The Clou outfit appeared in Austria, using a 17.5mm. film with a single perforation between the frames. A magazine, which wound the exposed film on the same shaft as the unexposed negative, fitted on the back of the camera. The film could be run either backward or forward through the camera, which served for taking, printing and projecting.

About this time, the Movette, consisting of a projector and camera, was made in Rochester. The negative, 17.5mm. wide with two round perforations for each frame, was supplied in daylight loading magazines and was of the non inflammable type. For projection, the film was wound in a magazine which fitted to the back of the projector.

During this year, there was introduced the Sept, of French manufacture, holding about seventeen feet of 35mm. It was very compact in size, was spring driven and could take either "stills" or movies.

1923. Abroad, the popularity of 9.5mm. film as an amateur movie medium offered convincing proof that, with the adoption of a universal, substandard film width, the possibility of making one's own photography in motion would prove attractive in America. Split 35mm. was proposed seriously and finally abandoned by the principal proponents of the projected movement because of the fact that, with such a standard, it would be too easy to split and offer for sale the theatrical nitrate film.

The development that was to solve this problem was the announcement, by the Eastman Kodak Company, of a new 16mm. reversal film on an acetate base. January 9 of this year the press carried news of a demonstration of the 16mm. film and reversal process, which emphasized economy in operation, by reason of the fact that only one film was necessary.

The reversal process, brought to a fine degree of perfection by laboratory workers before it was placed on the market, was certainly responsible for the solid foundation and immediate growth of amateur movie making.

The first 16mm. camera to make its appearance on the market to use this new film was built by Alexander Victor. This camera, offered for sale at the same time as the film, was a hand cranked machine which used fifty or 100 foot daylight loading spools. After it came the Ciné-Kodak Model A, a substantially built, hand cranked camera of excellent design. Even at the present day, this early camera is still giving active services.

The Kodascope Model A projector appeared at the same time as the Model A camera. An interesting departure was made in 1923 by Charles Urban, who offered the Spirograph. The pictures were printed in spiral form on a transparent disc, ten and a half inches in diameter. Such a disc could be projected on a special machine.

1924. In this year appeared the first spring driven 16mm. camera, the Filmo, made by the Bell & Howell Company of Chicago. Simultaneously appeared the Filmo projector, using a 200 watt lamp. This firm had already been well known as makers of 35mm. motion picture apparatus. Don Bell and Albert Howell incorporated as Bell & Howell in 1907, although Bell had been making film projectors as early as 1898. J. H. McNabb, the present president, joined the company in 1917.

1925. The Pathex hand cranked 9.5mm. camera, so popular abroad, made its appearance in America as the Pathex Motocamera, a spring driven machine using magazine loading. The magazines were available with reversal film, and the camera worked without feed or takeup sprocket.

During the year, there appeared the Eyemo, a spring driven 35mm. camera offered by the Bell & Howell Company. In 1929, this camera was furnished with a three lens turret and multiple speeds. In May, 1928, the Filmo "watch thin" camera, Model 75, was introduced; it took 100 foot spools and was finely finished. Special adaptations of the regular Filmo were also available, notably the high speed camera, working at 128 frames a second only.

This year appeared the first spring driven Ciné-Kodak, the Model B. In this camera, the feed and takeup spools were placed side by side and there was a curved film gate. These features are still characteristic of present similar cameras made by this manufacturer. The original Model B had an *f*/6.5 lens; this was followed by later models with *f*/3.5 and, finally, *f*/1.9 lenses, the latter being the standard fast objective still used in Ciné-Kodak cameras.

The Victor Animatograph Company introduced a multispeed, 16mm. spring-driven camera. The three film speeds included slow motion. In 1926, Victor introduced the first three lens turret camera.

1926. The Amateur Cinema League was formed in July, and the first number of Movie Makers was published in December of that year.

How lenses were refined

[Continued from page 540]

that the rear element can be small in proportion to the front element; Fig. 3 is drawn approximately to scale and shows this more clearly.

Fig. 3 shows the arrangement of lenses in the Cooke three and three quarter inch telephoto lens. It will be seen how the functions of the fundamental positive and negative elements, sketched in Fig. 2, have been split up between the front and rear elements of the actual lens. This is necessary to secure the strong negative "power" characteristic of the telephoto principle and still maintain critical definition at the fastest telephoto speed (*f*/3.3) available.

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It is hoped that the foregoing, necessarily generalized, elementary review of the main fundamental factors behind the lenses you use will assist in your appreciation of how fortunate the cine amateur is. It is not too much to say that modern lenses make amateur cinematography possible, because the small film image is so sharp that it can be enlarged many thousand times on the screen without loss of quality.

(Editor's note: This is the second of two articles by Mr. Mitchell on the principles of cine lenses. The first appeared in November Movie Makers.)

Making movies move

[Continued from page 526]

require, for its best presentation.

In more specific terms, the camera must attempt, through the imagination of its master, to bring to future screens all the full detail of perception regarding a subject which a living person might obtain in viewing that subject. It must show us first the general location or setting of any subject or action believed worthy of filming. With this established, it must move in closer (as a person himself might do) to obtain a clearer view of the whole subject without any great concern for its setting. Then, in a series of still closer shots, the camera should present to its audience each of those significant highlights of interest which contribute so essentially to the full pictorial or dramatic importance of any subject or action.

This kind of mobility in a motion picture is the one interpretation of our simple adage which is of real and paramount importance. There is nothing occult, tricky or mysterious about its creation. The method is simply the familiar one of the sequence, of which we have all read so much. It is the method of making a long shot to establish the subject, a medium shot to present the whole subject for itself and a series of closeups or semi closeups to tell the real story. This simple series of scenes, each concerned with the same subject, or with a series of very similar subjects, is the sequence and is the basic secret of a genuine feeling of movement in the motion picture.

It is a secret which has a dual significance and a method which yields twofold results. Firstly, and most important, the method of the sequence tells a more dramatically effective story than is possible with a camera that films the subject entirely from one position. It does this because it gives a well rounded picture and tells us inevitably the things we want to know. Secondly, by virtue of the constant change of scene and the variety of camera viewpoints, the method of the sequence effectively guards our film from the threat of monotony. This threat, which is a chief danger signal of a film's lack of cinematic movement, is an ever present one in unsequenced filming, no matter how interesting our subject matter or how superb our photography.

Once we realize these things, there can be but one more problem in our path toward making movies which move. How does one determine the particular scenes we are going to put into each sequence from now on? When a long shot, when a closeup? Basically, this too is not as mysterious a matter as it may first seem. The best guide is simply to picture your subject with a series of scenes which represent these things that a normally interested person might search out with his own eyes if he were examining the subject on the spot. Your own examination of the subject should be revealing and reliable. It will tell you if you paused for a long shot look as you approached, to get the whole lay of the land. It will suggest that a medium shot evaluation of the subject as a whole is always effective. It will indicate, as you draw near, which are the significant individual features of your subject that attract your own interest and attention. These features are the scenes which you should film in closeup. These are the dramatic symbols of the whole which compose attractively, compel attention and complete your story.

And it is simply this fluid, natural movement from scene to scene which the philosophic boys have in mind when they declare that a good movie must move. Let's grab the camera and go out and try some!

The Ten Best for 1936

[Continued from page 542]

In *Mount Vernon Seminary*, the T. W. Willard Motion Picture Company has made a remarkable Kodachrome publicity picture. No interior was too large for their color work, as is clearly shown by the fine shots of a "prom." Large rooms with groups of girls taken by artificial light were rendered in true colors with striking effect. The film demonstrates quite clearly how successfully color can be used in industrial and publicity filming and that no special limitations are involved. The most attractive titles were double exposed on well chosen bits of school scenery. The film has an air of friendliness and polish that is entirely in keeping with the spirit of the school it portrays. Just enough of the right things are shown to make a favorable impression on prospective patrons of the school.

An outstanding example of what may be done with ordinary 16mm. equipment in the factory is to be found in *The Story of Maytag*, a black and white industrial film made by Fred Maytag, II. The problems of picturing the manufacture of washing machines in complete detail involved some tremendous lighting difficulties. Mr. Maytag handled these with ease, and throughout the film there is the conviction that the clear, clean photography scarcely could be improved. While the film was designed for use within the sales organization, the procedure of manufacture is so clearly pictured that it is not only comprehensible to the layman but interesting as well.

The following pictures were awarded Honorable Mention.

An Interlude in Happy Isles, made by Dr. Delmer J. Frazier, is one of those comparatively rare vacation pictures that tell their story in detail, but only in that detail which will mean something to an audience that did not have the good fortune to take the same trip. We have no road signs nor guide maps (except for cinematic effect), we don't even know where "Happy Isles" may be. All we know is that the Frazier family has a delightful time there; that they plan their trips with care; that they love the woods and the wild life; and, finally, that their appreciation of it all thoroughly entitles them to an interlude of pleasure. This film is an excellent technical job—the interiors at the beginning of the picture are beautifully lighted, and follow shots of the squirrels in the woods are quite amazing. However, it is the continuity of this picture, with its well planned incidents, that gives it Honorable Mention.

A most workmanlike travelog of the West is *Bryce Canyon Wonderland*, a Kodachrome accomplishment of Frank Gunnell. Even, careful exposures make the film a delight on the screen, while interesting touches portraying the personal angle provide the cinematic punctuation. Gorgeous color rendition obtained in this wonderland was the result of experience and good judgment. The use of a tripod for every shot, coupled with finished technique and a dramatic subject, accounts for this film's photographic excellence.

In *Consider The Lilies*, Fred C. Ells, producer last year of the beautiful *In The Beginning*, continues his tender and loving examination of the natural world. When, at the close of this year's competition, his entry of 200 feet of 16mm. Kodachrome was viewed by the judges, it was found to be just that and nothing more. The lead title assembly, which was to be completed before the Ten Best deadline, had not arrived. But, in the half reel of chromatic flower studies which the judges were able to review, Mr. Ells has distilled a delicate beauty and lyric worship of flowers of the field which are breathtaking in their perfection. Seldom has the motion picture transmuted such pure loveliness from field to fireside.

In *Love Apples*, Henry Hoke presented what is, so far as Movie Makers rec-

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ords show, the first approach to filming the hobby and preoccupation of an entire family. Unquestionably the Hoke family likes tomatoes and, something less commonly encountered, it is willing to work to produce them. Mr. Hoke's Kodachrome film lets us see the entire family group at work planting, weeding, watering and picking—especially picking, because Mr. Hoke makes quite a cinematic point of eager hands reaching for tomatoes in and out of season. The continuity is active and full of humorous touches, with a shade too great an emphasis on camera tricks for their own sake; the photography is adequate and often provides much screen beauty. Above all, this film has a unity which, added to its unusual motive, brings it into the Honorable Mention class.

Pinch Hitter, a photoplay by Charles J. Carbonaro, has been given Honorable Mention because of its continuously sustained technical brilliance in the face of many problems of cinematic story telling. A suave situation comedy, it presents the dilemma of a girl who is asked once too often by her roommate to substitute for her on a temporarily undesired date. In time, the pinch hitter goes to bat for herself, knocks out a home run and leaves her roommate caught flat footedly out. In presenting this comedy of manners, Mr. Carbonaro has been helped by good acting from his players but hindered by not quite a light enough touch in the film's pace and direction. The lighting and camera work, which are genuinely of top flight quality, go far but not quite far enough in disguising this one weakness.

The Mountaineers Club Teton Expedition, made by Ray Garner, tells the story of several young men who did some real mountain climbing among the peaks of famous Western mountains. A most interesting introduction, showing briefly the various types of climbing, prepared the audience for some of the amazing sequences later on. Remarkable attention to human interest details sustains the entertainment quality throughout and, when the actual climbing starts, the thrills are second to none. The agility of the cameraman contributed greatly to the effectiveness of the film.

Misdirected medical research, with gruesome and very exciting consequences, is the basis of the plot of *The Scalpel*, a photoplay produced by Richard H. Lyford, with the aid of a group of boys and girls of high school age. The plot is extravagant, the story is rather too filled with amazing action, and there is not a doubt that the melodrama as a whole puts too great a burden on the acting ability of a group of young people, even though they are surprisingly able. Nevertheless, here is an amateur made thriller of the Frankenstein and werwolf tradition that really sends chills chasing down your spine. The

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transition of the unfortunate doctor into a demented and abnormal creature involved makeup that is really astonishing outside of a theatrical studio. It can't be said that the handling of the episode is any less convincing in this amateur production than are the same undertakings in the best Hollywood films of this nature. In addition to being really successful in its object, this picture offers some excellent technical work and very competent management of a large cast.

These Bloomin' Plants, by Eugene L. Ritzmann, has been given Honorable Mention because of the striking technical *tour de force* which it represents. In it, Mr. Ritzmann has pictured, by means of a camera controlled by a mechanism of his own design and construction, the actual blossoming of some half dozen or more flowers. Through this device of time condensation, buds are seen bursting open before one's eyes, often in cascades of beauty which vividly suggest the magic of colored fireworks against a night sky. The technical management of this difficult and esoteric phase of photography was almost without flaw. In the opinion of the judges, however, Mr. Ritzmann failed to do full justice to his material, both in his editing and in his title treatment.

The fact that the film, *Camp Pinnacle*, made by Robert F. Gowen, was provided with a clear spoken accompaniment served to enhance the workmanlike excellence of its cinematic presentation. Since it was a film made, avowedly, to sell to prospect parents the advantages of Camp Pinnacle, it would hardly have been fair to look for those more delicate nuances of atmosphere and sequence which may become a labor of love in the more personal film. Thus *Camp Pinnacle* was chosen for its excellence as a straightforward exposition, in glowing color, of every interesting aspect of the lives of the lads and their counselors at camp. In setting this forth, Mr. Gowen has chosen simple, natural sequences and has interpreted these with technical excellence and secure knowledge of the Kodachrome medium.

In *China's Gifts to the West*, we have what may be termed a *tour de force* of cinematic cutting. The most interesting part of the film is made up of a series of beautifully composed and photographed "stills," but the duration of each of these shots is so carefully timed that the entire sequence is fused into a relationship which conveys a distinct impression of cinematic motion—perhaps not "motion" in the ordinary sense of physical activity, but rather the deeper and more fundamental activity of the mind as it contemplates, one after the other, the various ideas which make up the unity of a conception. This has been accomplished by Mr. Space in his excellent choice of illustrations, which are projected into the mind in exactly the

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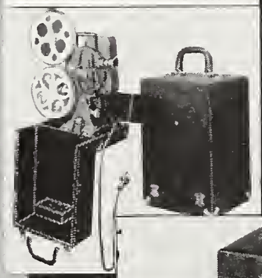

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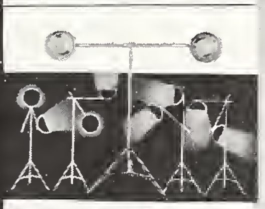

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right order and appearance. Beside this purely cinematic achievement, the maker of the film is to be congratulated on his excellent taste in selecting and displaying objects of art to the best advantage. The photographic technique employed in producing closeups and ultra closeups of fabrics, china and other materials is undeniably pretty close to perfection.

Movie Makers presents these twenty films as an authentic cross section of the best work of the 1936 non theatrical filmers, personal and practical, excluding only one class of non theatrical cinematic effort, those films made on 35mm. width, for which the makers received compensation from clients. Unquestionably an evaluation of pictures of this excluded type would be of value, but Movie Makers does not believe that rating them along with other practical and commercial films, made without the elaborate studio equipment available to 35mm. professional filmers, would give a reasonable competition for entrants.

In this cross section, Movie Makers has again received convincing evidence of the ability and intelligence of personal movie workers, which holds out great promise for the future of the Eighth Art in the non theatrical field.

The clinic

[Continued from page 524]

synchronization with the projector shutter, but this will not be serious. It might be well to check with the theatre manager before attempting this bit of filming, for sometimes they are not in sympathy with movie making in the audience. Not only can pictures be made in movie houses but, if a stage presentation is well lighted, it is possible to get quite good shots from front row seats. However, it is particularly advisable to get the permission of the management in the case of stage shows. Some of them are considered to be good theatrical screen material, and the management resents any filming of them.

Double exposure titles ■ Making a double exposed title is not a difficult or complicated process if the principles are clearly understood. The first task is to pick out the background, which may be either moving or still. In either case, it is important to select a subject which is naturally rather dark and which is not complicated in itself so that the interest of the background will not detract from the title wording. For example, if the subject is an ocean voyage, a shot taken from the stern of the ship showing the wake might do. If the film is black and white, it should be heavily filtered in order to make the water as dark as possible and, if color film is used, the exposure should be such as to make the water appear a strong dark blue. It is a wise plan to shoot a bit more than will be needed for the title in order to be sure that the title is exposed on the background and not on some other part of the roll. To have the title fade in and out gives a nice effect, and this requires generous footage. After shooting the background, the next step is to prepare the title itself. It must be made with pure white letters on a dead black background. It is important that there be no

PROJECTED PICTURE SIZES OBTAINED WITH 8mm. PROJECTION LENSES

DISTANCE IN FEET FROM SCREEN	FOCAL LENGTH OF LENS		
	3/4"	1"	1½"
	WIDTH OF PICTURE		
3 ft	9"		
4'	1'0"	9"	
5'	1'3"	11"	
6'	1'6"	1'1"	
8'	2'0"	1'6"	
10'	2'6"	1'10"	1'3"
12'	3'0"	2'3"	1'6"
16'	4'0"	3'0"	2'0"
20'	5'0"	3'9"	2'6"
25'	6'3"	4'8"	3'1"
32'	8'0"	6'0"	4'0"
36'	9'0"	6'9"	4'6"
40'	10'0"	7'5"	5'0"
45'	11'3"	8'5"	5'7"
50'	12'6"	9'4"	6'3"
64'		11'11"	8'0"
75'		14'0"	9'4"
100'		18'9"	12'6"
125'		23'5"	15'7"
150'		28'1"	18'8"

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chance for stray reflections on the surface of the card, and it should be lighted evenly to give a uniform appearance. The film which has been exposed on the background must be rewound to the starting point and then exposed on the title card. The second exposure will have to be determined by test, for it is rather critical. There must be enough exposure so that the letters are clear and white but not enough to show any of the black background. Once this test has been made with a given title setup, it will not be hard to make good titles in the future.

Studies in snow

[Continued from page 527]

to get a group of trees with snow ladened branches. Then, for variety, shoot some fairly low shrub. In the latter, work for back lighting, the illumination coming from behind, or nearly so. Do not be afraid to take time. Do not aim and shoot in rapid order. Study the subject. If you are new to the game, try two or three angles, so that you will know next time which is best. Try to find more than one interesting shot of each subject so that you will have units or sequences of scenes. If a subject is worth a medium or average shot, it is also worth a closeup, or at least a closer shot made at a different angle.

If there has been a heavy fall, you can get effective shots in the most unexpected places. A public drinking fountain, its dry basin piled with snow, can be worked into a charming effect if you circle it and find just what viewpoint will give you the best lighting and shading. An abandoned cart, similarly decorated, can be worked into something worth while, and a deserted fruit stand can be given real pictorial value. Intersperse these sequences of more or less still shots with scenes of action, such as crowds on the snow covered sidewalks, city children playing in the snow, etc.

But if you have a side yard, you do not even have to travel from home in search of material. Two or three milk bottles, snowed up, can tell the story of a delayed milk delivery, and hanging vines on the side of the house or the back fence will pose willingly and patiently while you study the shadow values.

Disregarding the warning against working too late in the afternoon, try to get the late afternoon sun throwing the shadows of trees on the unbroken snow surface. If you can find an apple orchard, with its irregular branches, you'll be in photographic clover, but any tree will do if you are careful to pick the best viewpoint. Generally, this will be one in which the shadows are coming toward you, but the reverse may hold true.

It may be that after a hard freeze the local waterfall will be ice bound. This,

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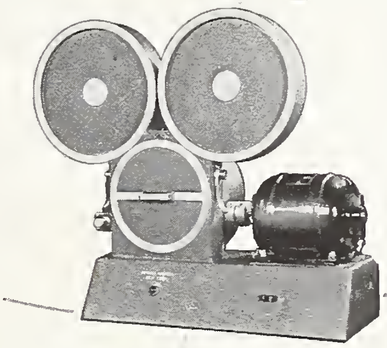

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under proper lighting, should prove a gem. Do not try to take it without sunlight, for here your entire value is the shadows on the ice blanket. Take it to get those shadows. If the sun strikes directly on the surface, the shadows may disappear. Wait until the sun passes over so that the lighting is from the side. This will bring the innumerable streaks of shadow against what would have been a sheet of plain white under a head on illumination.

Do not be afraid to go out into the storm itself if the skies are not too dark. See that the camera is well protected, but be careful that the protection does not intrude on the lens when an exposure is being made. If there is any breeze, shoot across the drift rather than into it, not only to keep the lens from being wet, but because with a head on shot the snow will appear to be coming straight down. Focus sharply on the middle distance and let the foreground take care of itself. Later, when bringing the camera into the warm house, be sure to wipe the condensed moisture from the lens if you wish to use it immediatly.

In assembling, use due caution to vary your shots. You have no imperative need to follow an exact continuity, since the general theme, winter, will tie the picture together, but you do need to have variety of camera distance, pace and subject matter. Sequences are imperative, for if you take but one scene of each interesting subject, your film is bound to be a hodgepodge.

This is the one rule which seldom can be broken, and it is just as important in the newsreel type of film as in the drama.

Try the editing game

[Continued from page 532]

editing in the camera as the picture is being made.

That's a hint of what more advanced editing can be. Simpler editing would consist in cutting out short pieces which record camera wobbles, eliminating badly under or overexposed scenes and so on. Then, when all the scenes are cut apart, why not at the same time group and rearrange them, so that a peaceful shot of grandma knitting is not followed by a waterfall?

Here's an easy way to keep each shot right under your hand. Place the hundred foot spool on the projector. Thread it up in the usual way, but don't use any takeup reel. Instead, let the film feed right out of the projector to the spindle of the rewind. (Yes, you must acquire a separate film rewind; it will prove handy in many ways!) Wind several thin rubber bands tightly around the rewind spindle, and you will find it easy to roll short lengths of film up on this. Of course, without a spool, the film must be guided by the fingers, or it will spring off the spindle.

As the scene unreels from the projector, inspect it closely on the screen as to content and condition. As soon as the scene is over, stop the projector. Cut it from the rest of the film, wind it on the rewind spindle into a small roll and remove it by backing up on the rewind handle a turn or two. Snap a small rubber band around the roll, and it is ready to be stored against later splicing. There are various ways of doing this, but one thing is absolutely necessary; *each scene must be easily located and identified at any time.*

The writer's favorite and homely (but effective) method is to make use of the familiar type of cardboard egg box, which is rectangular in shape and has a dozen compartments. Each of these compartments is numbered prominently in India ink, and each is just about the right size to hold a little roll of film.

Now we have an arrangement to keep the shots in order, but how are we to know what is in each clip? Nothing is easier. Get a couple of packages of index cards—the cheapest kind will do—and number them to correspond with the number of the film compartments. As each scene is inspected, jot down on the card its contents and make any special notes which may help you to visualize it quickly. Place the film itself in the compartment corresponding to the number on the card. When you get through, you will have a collection of cards, each carrying a description of its scene. You may then rearrange the cards to your heart's desire and, when you have settled the order in which the scenes are to occur in your new film, the key numbers will make it easy to pick out each scene as you splice.

The egg box method is only one of the systems available. You may hang up each strip of film with its end clipped to a numbered spring clothespin, if you like. However, to the writer's mind, the "numbered compartment" method is the best, because, if the editing is interrupted for several days, you simply close the cover of the egg box and store it in a cool dry place. Some zealous home carpenters improve on the egg box method by boring shallow holes in regular rows in a soft pine board with an expansion bit. You may purchase a regular editing case, with movable compartments and ready means for identification of scenes. But, whatever the method, the principle is the same.

Closeups with Eight

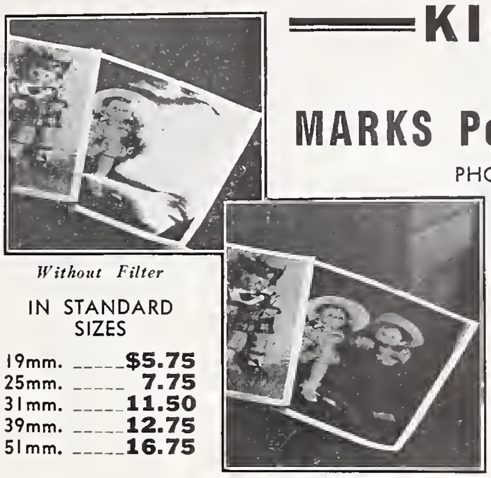
[Continued from page 536]

base, sixteen inches long, on one end of which is mounted the camera. At the other end, a small adjustable frame is hinged to the base, the purpose of the frame being to hold the lettered title cards that are to be photographed. Between the frame and the camera is an auxiliary lens, bringing the area in the frame into the correct focus with the film. Many small objects or parts of objects can be substituted for the title card and may be photographed with excellent results. With the titler, a lovely flower, a hand of bridge or the radio dial can be filmed in ultra closeup.

A technique of filming bits of action with the titler is easy to develop. For example, to make an extreme closeup of a match being struck on the side of its folder, the titler is set on a table with a white table cloth, which will help as a reflector. A flood bulb in a reflector is laid on its side so that the light will shine on the title frame. The bulb is placed about a foot away from the frame and about the same distance from the side of the camera. When the lens is set at *f*/8 and the camera is wound, everything is set for action. If you make the shot without assistance, the folder of matches is held in the left hand in the exact area of the title frame. With the position determined and the arm resting on the table, the folder easily can be held within the proper area. Then, if the frame is in the way, it can be pushed down to the base. The right hand pushes the starter lever down to a locked position, keeping the camera running, and then moves to the folder of matches. A match is taken out from the rest and lighted. The movements of the fingers should be just a little slower than usual. (Blowing slightly into the flame will bring a little more action in the scene). The hands finally are cupped about the burning match and are raised out of the picture. The camera is stopped quickly, and the scene comes to an end.

There is of my acquaintance an enthusiastic movie maker, who uses for his filming an 8mm. camera fitted with the *f*/3.5 universal focus lens. This camera, of course, can be operated no closer to the subject than four feet. If the camera is closer, the resultant image loses its sharpness. As his filming chiefly comprises studies of surgical operations, it means that a good many close shots are necessary. To solve his problem, he has developed a series of single auxiliary lenses which, in a way, are elaborations of the portrait attachment lenses developed for the inexpensive still cameras.

These lenses, of which there are three, were made to order through a local optical company. Costing $3.50 apiece complete, they all were made to fit the standard filter holder, and hence they are conveniently interchangeable. The first one, of four diopters, allows closeups at a distance of ten inches; a second, of two diopters, allows closeups at a distance of twenty inches; a third, of one diopter, is for closeups at forty inches. As a matter of fact, with the fixed focus lens of the camera, the first gives a range from ten to fifteen inches; the second a range of twenty to about thirty inches; the third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When photographing with the aid of these accessory lenses at positions less than four feet from the subject, there occurs some difficulty in centering the field correctly. If the view finder is on top of the case, the image in the finder will represent the correct field with reference to the sides, but it will be incorrect top and bottom. This is due, of course, to the fact that the lens is located a few inches below the finder, although both are in line vertically. If a titler can be used, this problem is eliminated, because the frame for holding the title cards designates the field limits. However, by experimenting with a rod several feet long, which is held against the camera case and is lined up squarely with the center of the lens and pointed in the same direction, the approximate center of the field can be found.

In making 8mm. closeups, it is important to use a light adjustable tripod. The jumpy pictures produced by a hand held camera are much more in evidence in the enlarged closeup than in the long and medium shots usually taken. If you have no tripod, be sure that the camera rests on something steady, be it a book, a table top, a chair or a desk.

Lighting up

[Continued from page 525]

back to former systems. The No. 4 bulb is more expensive than the smaller one, but the life is more than seven times as long and only one is needed ordinarily. The actual number depends, of course, on the conditions of the individual room. Check your fuses, however, as the No. 4 draws much more current than the smaller one in order to give its greater light. The No. 4 draws about eight and a half amperes. A safe load for the average home circuit, fused for fifteen amperes, would be one No. 4 plus one No. 2 or three No. 1's.

To vary this scheme for sequences requiring effect lightings, turn the reflector slightly away from the scene (still pointing it toward the ceiling) and build up the effect lights as desired, by using two or three reflectors with the regular flood bulbs. Turning the No. 4 away lowers the general tone of the scene and allows the effect lights to produce a better contrast.

Then, too, there are scenes which may require a general but more harsh light, in which case it is necessary only to tilt the reflector down toward the scene so that it has the direct illumination from the bulb and reflecting surface. At the same time, because of its high position and large reflector, this unit still will flood the scene more uniformly with light than if several smaller units were used.

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bulbs and you will be well on your way to getting shots that will be the delight and envy of all your movie making friends. A speed lens and supersensitive film are of course almost a necessity, and if the light permits stopping down there will be a resultant added depth of field.

For the benefit of those who really cannot afford a meter, I include my former pet lighting scheme for closeups. Have the subject sit about three feet from a bridge or table lamp, having replaced the regular bulb with a flood bulb. Place the lamp to one side and very slightly to the rear of the ear line of the face and also slightly above this line. Now put an unshaded flood bulb in an overhead light socket without using any reflector. If there is no socket, then the bulb and extension cord can be held by an assistant. In either case, the bulb should be about six feet from the face, slightly in front and high above. Last, use one more flood bulb (this one in a reflector) and turn it directly at the face from a point at eye level about six feet away. Use supersensitive panchromatic, open up to *f*/1.9 and shoot.

Amateur clubs

[Continued from page 534]

active and able club goes into its second full year of existence, a cooperatively produced film story has already been placed before the cameras, and plans are being formulated for permanent club quarters.

Films in Philly ■ Judged on formal score sheets by all the membership, *Lake Louise*, a one reel, 16mm. color study by Ripley W. Bugbee, ACL, took first award in the late contest for vacation films conducted by the Philadelphia Cinema Club. *Circus Days*, running 400 feet of 16mm. monochrome, won second place for A. L. O. Rasch. Early last month, members of this club joined in an outing to Willowbrook, near Pipersville, Pa., on the trail of fall colorings for a composite scenic study.

Buffalo tries again ■ A new constitution and a new board of officers are the immediate results of a reorganization of the Buffalo Amateur Cinema Club, first formed about a year and half ago. George F. Thomas, ACL, now leads the club as president, with Clyde M. Bishop, ACL, vicepresident; Dersey B. Doll, ACL, secretary; Albert S. Watts, treasurer. At the first meeting after reorganization, the program was devoted to a clinical screening of members' 8mm. films.

Mount Kisco ■ A discussion of how both a photoelectric cell exposure meter and color film are affected by a combination of artificial light and daylight was the fea-

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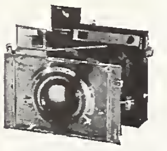

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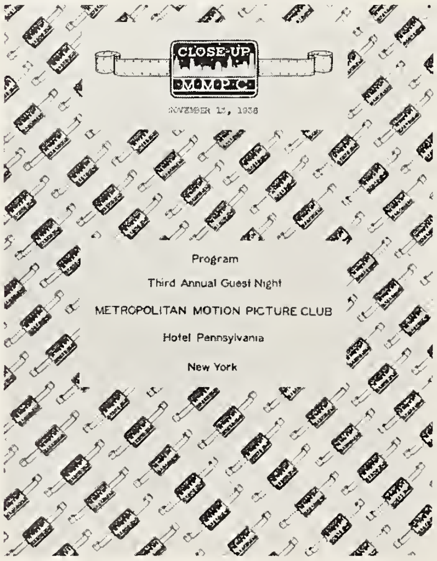
Metropolitan Motion Picture Club's board of directors

ture of a meeting of the Mount Kisco (N. Y.) Cinemats. The subject was discussed on the basis of recent experiments carried out by Robert F. Gowen, ACL. Following the discussion, members' films were screened by Halstead Park, projectionist for the program committee. Films shown were *Oakwood Epworth League Institute*, by R. C. Orr; *Christmas 1935* and *Spring is Here*, by David Griffen; *My First Attempt at Cinematography*, by Douglas Barrett; *Kodachrome in Bermuda*, by Mr. Park; a film on house wrecking by tractor, by Gordon Gorham; *Camp Pinnacle 1936*, a Kodachrome study of a boys' camp in Lyme, N. H., by Mr. Gowen.

Eights in Ohio? ■ In Cleveland, Ohio, 8mm. movie makers interested in the organization of a club devoted exclusively to their filming width are invited to get in touch with G. B. Zellers, ACL, of the G. B. Cine Service, 1771 East 12th Street, Cleveland, for further details.

League for Los Angeles ■ More than a hundred members of the Los Angeles Cinema Club heard Dr. John E. Harley, professor of political science at the University of Southern California, tell of his travels and observations during a recent stay in Europe, with especial reference to events at Geneva in connection with the League of Nations and in Germany during the Olympic Games. Dr. Harley illustrated his remarks with three reels of his own films, which pictured many leading personalities in the League of Nations community at the tense occasion of Ethiopia's plea for recognition, as made by her monarch, Haile Selassie. The program was concluded with a screening of five reels of Kodachrome of Europe, filmed by Harrison Chandler, a former member of the Los Angeles club.

Gala "Close-up" was program of M. M. P. C. Guest Night



CLOSE-UP
M.M.P.C.
NOVEMBER 13, 1936

Program
Third Annual Guest Night
METROPOLITAN MOTION PICTURE CLUB
Hotel Pennsylvania
New York

In Salem ■ An active fall season was well begun for the Lens and Tripod Club of Salem, Mass., by a well attended discussion meeting on visual education. Later meetings featured the scenarization of a photoplay, to be filmed shortly, and a gala celebration, with invited guests, special speakers and screenings of *H-2-O* and *Telemark*, from the League's Club Library.

M. C. C. afloat ■ A cruise down the Minnesota River, from Mendota to Saint Paul, was an early fall activity of the Minneapolis Cine Club, according to secretary Ormal I. Sprungman, ACL. The boat was the *MS Mecco*, owned jointly by some of the members; the pilot, club president John Huebscher, ACL; the chief steward, social chairman Jordan Penney, ACL. Members' color films were screened al fresco on the upper deck as the cruise came to an end in Saint Paul.

Staten Island screens ■ A program of five films, three by club members and two from the League Club Library, was featured at a late meeting of the Staten Island Cinema Club, gathering regularly now in the home theatre of Herman Andresen, ACL. *Love Finds a Way* and *The New York Fire Department*, both by Harry Wohlker, and *Newsreel*, by Harry Wilson, ACL, were the members' films, while *Fishers of Grande Anse*, by Leslie Thatcher, ACL, and *Egyptian Travelog*, by Sidney Moritz, ACL, were added attractions. Frank

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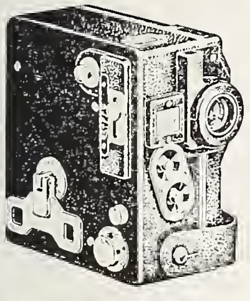

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EASTIN 16mm. PICTURES
Davenport, Iowa

Gunnell, ACL, and George T. Smith, ACL, were the winners of the club's earlier uncut film contest, in the color and monochrome divisions respectively. The Staten Island group will be a year old in January and will celebrate the occasion with a birthday party now being planned by E. W. Wilby, ACL, and by Messrs. Gunnell and Wilson. A carefully worked out record film of the event has already been determined on as a chief feature.

In Aurora ■ At its first meeting devoted to cine interests, the Fox Valley Camera Club, a recently organized group serving both still and movie cameramen of Aurora, Ill., heard from J. P. Fitzwater and H. G. Aschoff, ACL, vicepresident and corresponding secretary of the neighboring and veteran Chicago Cinema Club. They offered many valuable suggestions for club activities and presented a program of outstanding 8mm. films, according to J. H. Watts, ACL, Fox Valley vicepresident in charge of the cine section.

Take titles ■ In Missouri, members of the Jefferson City Cinema Club studied title making and interior filming in two programs devoted to practice and demonstration, reports Father M. W. Deck, secretary. Films screened at these two gatherings include *My Daughter*, by George Leonard, and *Jefferson City Colt Show*, a record film made for the Chamber of Commerce by Townsend Godsey. Meetings are now being held in the club rooms of St. Peter's School.

Montreal notes ■ The critical screening of members' films has been the feature of late gatherings of the Montreal Amateur Movie Club, reports H. D. Marwood, president of this active group. Detailed report forms are now used by the Montreal club in evaluating pictures seen in this way. *Alaska*, a color study by F. Robinson, official photographer of the Canadian National Railways, was presented at a late meeting, through the courtesy of that company, on the same program with *Symphony of Spring*, by Mr. Marwood, and *The Movie Club Goes Nautical*, by Marcel Baulu, ACL.

Nite Life

[Continued from page 533]

The lighting of the screen should be even, over its whole surface. Two flood lamps, one on each side, will do the trick. There is suspended in front of the camera a piece of gelatin, on which diagonal strips have been painted in various transparent colors. The gelatin sheet may be of any convenient size and distance from the camera, as long as it fills the field and one can focus on it.

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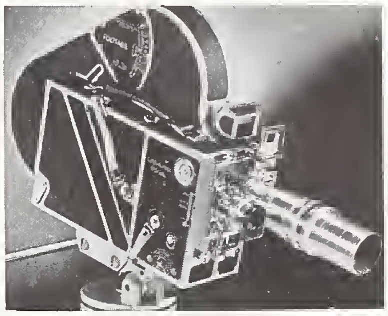
FOR THE MOVIE MAKER



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Little Rock: Jungkind Photo Supply Co., 114 W. Fourth St.

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Anaheim: Orange County Drug Co., 300 W. Center St.
Azusa: Ward's Photo Shop, 735 Azusa Ave.
Bakersfield: Edwards Camera Exchange, 1609 196th St
Berkeley: Berkeley Commercial Photo Co., 2515 Bancroft Way.
Beverly Hills: W. L. Martindale, 9477 Santa Monica Blvd.
Burlingame: Camera Photo Service, 341 Primrose Rd.
El Monte: Anderson Photo Service, 232 W. Valley Blvd.
Fillmore: Ellsworth Electric, 341 Central Ave.
Fresno: Fresno Camera Exchange, 2037 Merced.
Laval Co., Inc., 1319 L St.
Photo Service Co., 1931 Mariposa St.
Potter Drug Co., 1102 Fulton St.
Stillman Drug Co., 2001 Van Ness Blvd.
Glendale: Glenar Studio, 209 E. Broadway.
A. L. Kirkhuff Camera & Movie Supply Co., 123 S. Brand Blvd.
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Camera Mart, 1652 N. Cahuenga Blvd.
Bob Gamble, 4303 Melrose St.
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Richter's Photo Service, 7901 Santa Monica Blvd.
Seymour's News Service, 1101-1103 N. Fairfax Ave.
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Wilshire Photo Service, 5115 W. Pico Blvd.
Monterey: McKay Photo Service, 470 Alvarado St.
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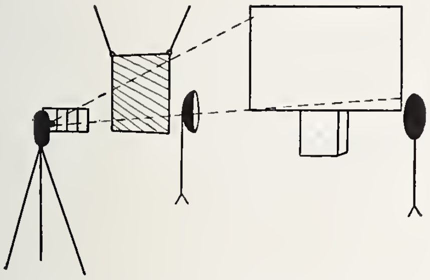
Famous-Barr Co., Kodak Dept., Main Floor, 6th & Olive Sts.
Geo. D. Fisher Optical Co., 918 Locust St.

(Continued on page 562)

The light reflected from the illuminated screen passes through the colored gelatin transparency to the camera lens. Then, take a strip of gelatin, about two inches wide and a foot long, and paint on it, with transparent colors, red, green, blue, and possibly yellow, stripes about half an inch wide. Finally, with the camera running and trained on the suspended transparency, slowly pull this strip across the lens, just over it. This strip, which is nothing more than a group of different colored filters, will produce on the screen a vibrating design of every imaginable color combination. To get the correct exposure, hold the meter in the place occupied by the camera lens so that the reflected light from the screen passes through the suspended transparency and the movable strip to reach the meter.



A setup for making unique trick titles in Kodachrome

When this background has been made to start with, the film can be rewound, and any wording may be double exposed over it, by painting the letters on black cardboard and photographing.

The effect of this scheme is hard to visualize, but it is easy to contrive it and the result is most beautiful. Variegated gelatin filters and striped filters can be had from theatrical supply houses. If you get the striped number 100 Rainbow filter, one is all you need. Cut off a portion of the complete filter—which is about two feet square—and use it for the strip to move in front of the lens. The diagram on this page illustrates the procedure.

Going back again to our friend, the cat, there is a place where he takes the pitchfork, pointing it at a foot sticking out of the bed covers. As he does this, there is a puff of smoke. With the camera filming in closeup, the foot, which is sticking out of the bed, dissolves, from the ankle down, to a skeleton foot, which dissolves to a crab claw and then turns into a chicken foot, which finally dissolves again into the skeleton foot. In editing, these shots were inserted alternately between scenes of a face registering agony. To do this, I set up my camera, which has mask slots, about four feet from the end of the bed and at the side, in such a way that the exact center of the field was on the ankle, which was protruding from the end of the bed. The background behind the foot and behind that part of the leg that protruded, was dead black. Then the vertical mask was inserted in the camera on the side that would cut off the foot in the picture, leaving only the bed end and the leg, above the ankle, to be photographed. About twenty feet of this was shot, the film rewound and the opposite mask inserted.

All this had to be done by Mrs. Moore, while I, as the actor, kept my foot completely stationary. Then, with my foot still in exactly the same place, the camera was started and about four feet were taken of the "foot side" of the picture; this was then faded out preparatory to making the dissolve into the skeleton foot. This property, which was lent to me by a medical friend, was fastened to a suitable support in the same relative position as the real foot in the previous shot. The background was dead black, and the support was covered by wrapping with black ribbon. Black thread was fastened to the toes of the skeleton foot, which were wriggled throughout the shot. This was dissolved to a crab claw which, being so small, had to be photographed with the four and a half inch lens with tube extension, to make sure that the claw would have the same relative size as the foot.

An amazing thing happened in this shot. We broke a claw off a live crab and fastened it to a support. Black threads were attached to give motion. When the hot lights were turned on, although it "was dead as a claw can be," it actually started snapping in the most realistic and eerie fashion. We had not counted on crustacean resurrection.

Let me give you just one more expedient. Near the end of the film, I reach sleepily to turn off an alarm clock and I burn my fingers on some exposed lamp wires. After jumping up in bed, I am seen holding up the burned fingers, looking at them, and then the scene cuts to a shot of two fingers, moulded from children's modeling clay. These fingers acquire faces, through a dissolve, and discuss their burns, in an animation sequence. Modeling the fingers to look like my own was job enough, but we got it done in detail, front and back, making nails of celluloid, painted red with nail polish. The fingers were about double my own size, but even so, to make them fill the whole scene in the closeups, they had to be photographed with the four and a half inch lens and closeup extension tube. You can imagine the light needed for this scene, as the already slow telephoto lens, filming Kodachrome, was further slowed by the extension tube.

The windows were opened to keep the clay cool. But this was done on a night when the temperature was around zero outdoors. I worked seven hours on the animation and throughout I wore a

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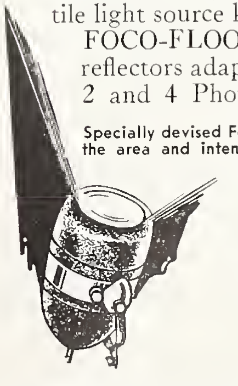

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(Continued from page 560)

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Stickley's Photo Shop, cor. Hawley and Carroll Sts.
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Lima: Acme Cine Service, 1204 W. Market St.
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Hanover: E. J. J. Gobrecht, 120 E. Chestnut St.
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Ernest M. Pollas Motion Picture Equipt., 702 Railroad St.
New Castle: Charles T. Metzler Co., 22 N. Mill St.
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Wilson Photo Service, 615 W. Marshall St.
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Knoxville: The Snap Shop, Inc., 615 S. Gay St.
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Nashville: G. C. Dury & Co., 420 Union St.
Mills Book Store, Camera Dept., 703 Church St.

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Sanger Bros., Inc., Dept. 36.
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Fort Worth: Camera Shop, Inc., 113 W. 6th St.
Lord Optical Co., 704 Main St.
Houston: Atlas News & Book Store, 922 Main St.
Star Elec. & Eng. Co., Inc., 613 Fannin St.
San Antonio: Calpini, Inc., 211 E. Houston St.
Fox Co., 215 Alamo Plaza.
Waco: W. A. Holt Co., Inc., 113-115 N. Fifth St.

UTAH

Salt Lake City: Eastman Kodak Stores, Inc., 155 S. Main St.

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Burlington: G. W. La Pierre's, 71 Church St.

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Norfolk: G. L. Hall Optical Co., 257 Granby St.
Richmond: S. Galeski Optical Co., 737 E. Main St.
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Roanoke: Roanoke Photo Finishing Co., 105½ W. Campbell Ave.

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Seattle: Anderson Supply Co., 111 Cherry St.
Clyed's Camera Exchange, 1102 First Ave.
Eastman Kodak Stores, Inc., 1415 Fourth Ave.
Lowman & Hanford, 1512 Second Ave.
Motion Picture Service, 1711 Ravenna Bld.
Sherman, Clay & Co., 1624 Fourth Ave.
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Tacoma: Eastman Kodak Stores, Inc., 910 Broadway.
Yakima: Joseph Yolo, Motion Pictures & Equipment, Larson Bldg.

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WISCONSIN

Appleton: Johnston's Book Store, 311 E. College Ave.
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Madison: Photoart House, 413 State St.
Photocraft, 305 State St.
Milwaukee: Boston Store, Kodak Dept., Wisconsin Ave. & Fourth St.
Eastman Kodak Stores, Inc., 737 N. Milwaukee St.
232 W. Wisconsin Ave.
Gimbel Bros., Kodak Dept., Wisconsin Ave. at N. Plankinton Ave.
Photoart House, 844 N. Plankinton Ave.
Schuster's, Camera Dept., Third and Garfield.
12th and Vliet.
11th and Mitchell.

WYOMING

Worland: Worland Drug Co.

(Continued on page 564)

heavy overcoat, but the heat kept softening those clay fingers so much that the lights had to be turned off very frequently to let the clay cool. Yet I nearly congealed.

These are some of the hurdles one none too experienced worker met, but I learned what I suspect most of you know already. The greater the hurdles, the keener the pleasure of accomplishment. I enjoyed every minute of making *Nite Life.*

News of the industry

[Continued from page 541]

Globe projector ■ A new 16mm. sound projector, sponsored by Walter O. Gutlohn, Inc., 35 West 45th Street, New York, and to be used by this firm in connection with its well known list of entertainment and educational sound film subjects, recently has been announced. The machine is substantially built and is the product of a manufacturer which specializes in this type of equipment. The Globe projector operates in a cast aluminum case and has a well designed mechanism that offers convenience in film threading and operation. The reel arms provide clearance for any size reel up to 2000 foot capacity. A special feature is the variable speed control, which enables the film to be run at sound speed or at any intervening speed down to twelve frames a second, if desired. The light source is a 750 watt lamp, and adequate ventilation insures maximum lamp life. The amplifier provides an undistorted output of 10 watts at the loud speaker, which is sufficient for a large audience. All controls are centralized and the amplifier is contained within the projector casing. ■ Walter O. Gutlohn, Inc., also announces a new seasonal list of outstanding educational pictures, especially adapted to school curricula; these include subjects covering physical science, botany, bird and insect life, evolution, aquatic studies and many others. In addition, many new titles have been added to the Gutlohn catalog of outstanding entertainment subjects.

Oval Table ■ The official opening of the National Salon of Photography, sponsored by the Oval Table Society of New York, was held at the Vanderbilt Gallery in New York City, on Sunday, November 1. Prints, representing the best work of leading photographers, were grouped into pictorial and technical sections and the entire exhibit gave striking evidence of recent photographic advances in the still field.

Kodachrome stock titles ■ A novel line of 16mm. stock color titles has been announced by Willoughbys, 110 West 32nd Street, New York. The title wordings are hand lettered and appear on an assortment of appropriate colored backgrounds. They are photographed in full color on Kodachrome film. At present, eight standard titles are available, and a list and description will be sent upon application to Willoughbys.

Fiber case for Keystone ■ A durable and well finished fiber carrying case, adapted for carrying and storing any one of the three most popular models of the Keystone projector, recently has been made available by the Fiberbilt Sample Case Company, 40-42 West 17th Street, New York City.

Featured Releases

■ *This department is for the convenience of readers in guiding them to library films, announced in this issue. These films, in the main, have not been examined by* Movie Makers.

■ Bell & Howell Co., Chicago, Ill., offers rental subjects from the Filmosound library as follows: *The Ghost Rider,* with William Farnum, and *Pals of the Range,* each six reels; *Ski Lanes,* a winter sports reel made in Yosemite; Felix the Cat in *Uncle Tom's Crabbin',* a cartoon burlesque of Little Eva.

■ M. F. Caldwell, Arlington, Mass., has for sale the 16mm. film, *How Gamblers Win,* which depicts in closeups various methods used to cheat at cards.

■ Cine Classic Library, Brooklyn, N. Y., has for rent or for sale 16mm. sound on film features and short subjects.

■ Eastin 16mm. Pictures, Davenport, Iowa, has 100 and 200 ft. subjects for sale, as well as a rental library of films.

■ Eastman Kodak Co., Rochester, N. Y., distributes Cinegraph releases in both 8mm. and 16mm. widths.

■ Films, Inc., New York City, has 16mm. sound films for rent. Recent films put out by Gaumont-British, Universal and Independent Pictures are available.

■ Ford Movie Co., Detroit, Mich., has 100 ft. subjects for sale.

■ Garrison Film Dist., Inc., New York City, has 16mm. sound films. *Jesus of Nazareth,* in six reels, and religious short subjects are offered.

■ Guy D. Haselton Travelettes, Hollywood, Calif., continues to offer *Boulder Dam—Its Power on Display,* 125 ft., and *Hummingbird Home Life,* in 125 ft. or 200 ft. versions.

■ J. H. Hoffberg Co., Inc., New York City, has 16mm. sound on film features and shorts for sale.

■ Kodascope Libraries, Inc., New York City, has 16mm. reduction prints of old Charlie Chaplin comedies for sale. *Burlesque of Carmen* and *Police* are offered in silent versions. An appropriate Christmas subject, *The Toy Shop,* is available in 16mm. with musical accompaniment.

■ Lewis Film Service, Wichita, Kans., has 8mm. and 16mm. comedies, cartoons and novelties for rent or for sale; a list will be sent free on request.

■ Nu-Art Filmco, New York City, is exclusive distributor for the 16mm. sound on film subject, *Kentucky Blue Streak,* in six reels, featuring Eddie Nugent, Junior Coghlan and Patricia Scott, and *Ski Thrills,* one reel 16mm. sound on film, made in Norway.

■ Ernest M. Reynolds, Cleveland, Ohio, has scenic short subjects for sale in 100 ft. lengths.

■ Stewart Films, Trenton, N. J., has four James Oliver Curwood stories in 16mm. sound on film. These are *Skull and Crown, Vengeance of Rannah, The Test* and *Caryl of the Mountains,* each six reels starring Rin Tin Tin Jr., and they are for sale or for rent.

■ United Film Libraries, New York City, has 16mm. sound on film features and shorts for rent or for sale.

■ Visual Instruction Supply Corp., Brooklyn, N. Y., has 16mm. library films, silent or sound on film, for rent or for sale.

■ World Pictures Corp., New York City, has the feature 16mm. sound film, *Slalom,* a story of skiing, bob sledding, ski joring and skating at St. Moritz, Switzerland.

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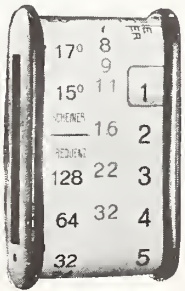

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(Continued from page 562)

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HAWAII

Hilo: Moses Co.
Honolulu: Eastman Kodak Stores, 1059 Fort St.
  Eastman Kodak Stores, Waikiki Branch, 2401 Kalakaua Ave.
  Hawaii Chemical and Supply Co., 148 S. Beretania St.

UNITED STATES POSSESSION

PUERTO RICO

San Juan: Carbia Bros., 15 Plaza Principal.

OTHER COUNTRIES

ARGENTINE

Buenos Aires: Casa Rodriguez, Maipu 277.
Rosario de Santa Fe: Enrique Schellhas e Hijos, San Martin 764.

AUSTRALIA

New South Wales

Sydney: Filmo Stores, 4th Floor, State Shopping Block, Market St.
  Harringtons, Ltd., 386 George St.
  Kinelab Film Service, Adams' Bldg., 484 George St.
  Kodak (Australasia) Pty., Ltd., 379 George St.
  Swain & Co., Ltd., Pitt St.

Queensland

Brisbane: Kodak (Australasia) Pty., Ltd., 250 Queen St.
Rockhampton: Kodak (Australasia) Pty., Ltd., East St.
Toowoomba: Kodak (Australasia) Pty., Ltd., Ruthven St.
Townsville: Kodak (Australasia) Pty., Ltd., Flinders St.

South Australia

Adelaide: Kodak (Australasia) Pty., Ltd., 37 Rundle St.

Tasmania

Hobart: Kodak (Australasia) Pty., Ltd., 45 Elizabeth St.
Launceston: Spurlings', 93 Brisbane St. (next Quadrant).

Victoria

Melbourne CI: Harringtons, Ltd., 266 Collins St.
  Kodak (Australasia) Pty., Ltd., 252 Collins St.

West Australia

Perth: Kodak (Australasia) Pty., Ltd., 662 Hay St.

AUSTRIA

Vienna I: Foto-City, Karntnerstrasse Nr. 45.

BELGIUM

Brussels: "Cinama", Harry Fishman et Cie, Avenue Louise 46a.
  J. Van Dooren, 27 Rue Lebeau.

BRAZIL

Sao Paulo: Fotoptica, Casa Dos Amadores, Rua Sao Bento 49.

CANADA

Alberta

Calgary: Harry's News and Tobacco Shop, 109 Eighth Ave., W.

British Columbia

Vancouver: Dunne & Rundle, Ltd., 531 Granville St.
  Eastman Kodak Stores, Ltd., 610 Granville St.

Manitoba

Winnipeg: Eastman Kodak Stores, Ltd., 287 Portage Ave.
  Hudson's Bay Co., Inc., Retail Store, Dept. 406.

Ontario

Kingston: Thomson Photo Specialty Co., 69 Clarence St.
Toronto: Associated Screen News, Ltd., Tivoli Theatre Bldg., 21 Richmond St., E.
  Frank P. Boyce, 192 Sunnyside Ave.
  Eastman Kodak Stores, Ltd., 66 King St., W.
  T. Eaton Co., Ltd., Dept. D30, 190 Yonge St.
  Screen & Sound Service, Ltd., 156 King St., W.
  Robert Simpson Co., Ltd., Dept. 202.

Quebec

Montreal: Associated Screen News, Ltd., 5271 Western Ave. at Decarie Blvd.
  H. de Lanauze, 1027 Bleury St.
  Eastman Kodak Stores, Ltd., 286 Craig St. W.
  Gladwish & Mitchell, Dominion Square Bldg.
  Metropolitan News Agency, 1248 Peel St.
  Screen & Sound Service, Ltd., 1242 St. Catherine St., W.
  Street Photo Supply Co., 1479 St. Catherine St.. W.

Saskatchewan

Regina: Bird Films, Ltd., 2325 Eleventh Ave.
  Regina Photo Supply, Ltd., 1924 Rose St.

CHINA

Shanghai: China News Co., 447 Szechuen Rd.
  Chiyo Yoko Photo Supplies, 80 Nanking Rd.
  Eastman Kodak Co., 185 Yuen Ming Yuen Rd.
  Standard Photo Supply Co., 445 Nanking Rd.

CZECHOSLOVAKIA

Prague 2: Kodak Spolecnost S. R. O. Biskupsky dvur 8.
  Emil Wachtl, Specialists in Cine Cameras, Senovazna 8 and Narodni tr. 26.

DENMARK

Copenhagen K: Bach & Kirk, Vimmelskaftet 38.
  Budtz-Mullers Eftf. A/S, Bredgade 29.
  Kongsbak and Cohn, Vimmelskaftet 43.
  V: Kodak Aktieselskab, Ostergade 1.
    S. Skotner, Amalievej 14.

DUTCH EAST INDIES

Java

Batavia Centrum: Kodak Ltd., Noordwijk 38.
Soerabaia: Kodak, Ltd., Paradestraat 9.

Sumatra

Medan: Cine Arts Studio, 38 Huttenbachstraat.

EGYPT

Alexandria: Kodak (Egypt) S. A., 23 Cherif Pacha St. and Ramleh Sta.

ENGLAND

Blackburn: Edwin Gorse. 86 Accrington Rd.
Bournemouth: J. E. Beale, Ltd., Photographic Dept.
Bristol: M. W. Dunscombe, Ltd., 5-7 St. Augustine's Parade.
  H. Salanson & Co., Ltd., 20 High St.
Chester: Will R. Rose, 23 Bridge St. Row.
Harrogate: A. R. Baines, 39 James St.
Kent: Amateur Cine Service, Ltd., 52 Widmore Rd., Bromley.
Leeds 1: Pearson & Denham (Photo), Ltd., 6 Bond St.
Liverpool: Kodak, Ltd., 70 Lord St.
  J. Lizars, 71 Bold St.
London: E. C.: Camera Co., 52 Cheapside.
  City Sale & Exchange (1929) Ltd., 84 Aldersgate St.
  E. C. 2: City Sale & Exchange (1929) Ltd., The Arcade, Liverpool St.
    59 Cheapside.
    Horne's Camera Mart, 58 Old Broad St.
  E. C. 3: City Sale & Exchange (1929) Ltd., 54 Lime St.
    Horne's Camera Mart, 32 Gracechurch St.
  E. C. 4: City Sale & Exchange (1929) Ltd., 91-94 Fleet St.
    R. E. Schneider, Keystone Distribution Dept., 46 Farringdon St.
  N. W. 6: S. I. Shoot, 179 West End Lane, Hampstead.
  S. W. 1: Camera Co., 320 Vauxhall Bridge Rd.
    Kodak, Ltd., 96 Victoria St.
    Westminster Photographic Exchange, Ltd., 119 Victoria St.
  W. C. 1: Ensign. Ltd., Ensign House, 88-89 High Holborn.
    Miscellaneous Trading Co., Ltd., 13-17 New Oxford St.
  W. C. 2: Kodak, Ltd., Kingsway.
    Sands, Hunter & Co., Ltd., 37 Bedford St., Strand.
    Westminster Photographic Exchange, Ltd., 24 Charing Cross Rd.
      81 Strand.
  W. 1: Bell & Howell Co., Ltd., 13 & 14 Great Castle St., Oxford Circus.
    J. H. Dallmeyer, Ltd., 31 Mortimer St., Oxford St.
    Wallace Heaton, Ltd., 119 New Bond St., 47 Berkeley St., Piccadilly.
    Selfridge & Co., Ltd., Dept. 109, 400 Oxford St.
    Westminster Photographic Exchange, Ltd., 111 Oxford St.
  W. 8.: Wallace Heaton, Ltd., 43 High St., Kensington.
Manchester: J. T. Chapman, Ltd., Albert Square.
  National Film Agency, 64 Victoria St.
Newcastle-on-Tyne: Brady & Martin, Ltd., 29 Mosley St.
  Kodak, Ltd., 32 Grainger St.
Sheffield: Sheffield Photo Co., 6 Norfolk Row (Fargate).
Staffordshire: John Martin, 66 Derby St., Leek.

FINLAND

Helsinki: Aurora Filmi, Yrjonkatu 17A.

FRANCE

Bordeaux: Kodak Pathe S. A. F., 2 Place de Tourny.
Cannes: Kodak Pathe S. A. F., 1 rue Marechal Foch.
Lyon: Cinastam (Bell & Howell, Sub-Agent), 25 Quai Tilsitt.
  Kodak Pathe S. A. F., 26 rue de la Republique.
Marseilles: Kodak Pathe S. A. F., 37 rue St. Ferreol.
Nice: Kodak Pathe S. A. F., 13 Avenue de la Victoire.
Paris: Amateur Cine Photo Selection, Establs. J. ChOtard, 20-22 rue Bobillot.
  American Photo Service, 59 rue de Chateaudun.
  M. Assemat (Bell & Howell Agent), 95 rue des Petits Champs.
    84 rue des Petits Champs.
  Brentano's, 37 Avenue de l'Opera.
  le Grimoire, 182 Blvd. Berthier.
  Kodak Pathe S. A. F., 63 Avenue des Champs Elysees.
    9 Blvd. des Italiens.
    39 Avenue Montaigne.
    5 Avenue de l'Opera.
    41 Blvd. Raspail.
    28 Place Vendome.
  Photo-Plait, 35-39 rue Lafayette.

HOLLAND

Amsterdam: Capi, 115 Kalverstraat.
  N. V. Foto-en Kinohandel "Lux," Nassaukade 361.
Arnheim: De Booys Fotohandel, Jansstraat, Hk. Jansplaats.
Hague: "City," Zeestraat 65a.
  N. V. Fotohandel ter Meer Derval, Fred. Hendriklaan 196.
  Kodak-N. V., Anna Paulownastraat 76.
  Hans Nieuwenhuis, Thomsonlaan 57-59.
Rotterdam: Fotohandel "Foka" Admiraliteitsstr. 4-8.

HUNGARY

Budapest VII: Hafa, Hatschek Es Farkas, Cine Dept., Rakoczi ut 80.

INDIA

Bombay: Continental Photo Stores, 243 Hornby Rd.
  Empire Book Mart, 160 Hornby Rd.
Calcutta: Army & Navy Stores, Ltd., 41 Chowringhee St.
  Photographic Stores & Agency Co., 154 Dharamtala St.

IRISH FREE STATE

Dublin C.1: T. H. Mason, 5-6 Dame St.
  Pollock & Co., Ltd., 50 Grafton St.

ITALY

Milan: Kodak Societa Anonima, Via Vittor Pisani N. 6 (129).

JAPAN

Kobe: Honjo & Co., 204 Motomachi 6-Chome.
Kyoto: J. Osawa & Co., Ltd., Sanjo Kobashi.
Osaka: Shueisha, 25 Kitahama 4 Chome, Higashiku.

MEXICO

Mazatlan: American Photo Supply Co., S. A., Ave. Angel Flores 408.
Mexico City: American Photo Supply Co., S. A., Avenida Madero No. 43.
  Casa Calpini, S. A., Av. Madero 34, Bell & Howell "Filmo" Agency for Mexican Republic.
  Foto Mantel Sucr. R. Rudiger, V. Carranza 11.
    Branch No. 1: Juarez Ave. No. 66.
    Branch No. 2: 16 Septiembre No. 2.
  Foto Regis, Sole Agents for Victor Equipment, Ave. Juarez 80.
Monterrey: American Photo Supply Co., S. A., Avenida Morelos 535.
Puebla: American Photo Supply Co., S. A., Ave. Reforma 109.

NEW ZEALAND

Auckland: Kodak New Zealand, Ltd., 162 Queen St.
Christchurch: Kodak New Zealand, Ltd., 681 Colombo St.
Dunedin: Kodak New Zealand, Ltd., 162 Princes St.
Hamilton: Watson's Camera House, Victoria St.
Wellington: Kodak New Zealand, Ltd., 16 Victoria St.
  294 Lambton Quay.

NORTH AFRICA

Algeria

Alger: Kodak-Pathe, S. A. F., 48 Rue d'Isly.

NORWAY

Oslo: A/S Narvesens Kioskkompani, Stortingsgaten 2.
  J. L. Nerlein, A/S, Nedre Slotsgate 13.

PANAMA

Panama City: Kodak Panama Ltd., 111 Central Ave.
  Lewis Service, Inc., 124 Central Ave.

PERU

Lima: Importaciones Americanas S. A., (Antigua Casa, Lemare & Co.), Villalta 220, Apartado No. 813.

PHILIPPINES COMMONWEALTH

Manila: Photo Finishing Corp., 114 Escolta.

POLAND

Warsaw: M. Arct., 35 Nowy-Swiat.

SCOTLAND

Aberdeen: J. Lizars, 118 Union St.
Edinburgh: J. Lizars, 6 Shandwick Pl.
Glasgow: Robert Ballantine, 103½ St. Vincent St., C. 2.
  Kodak, Ltd., 46 Buchanan St.
  J. Lizars, 101 Buchanan St., C. 1.
    381 Sauchiehall St., C. 2.

SIAM

Bangkok: Prom Photo Studio, New Road, cor. Chartered Bank Lane.

SOUTH AFRICA

Cape Province

Cape Town: Kodak (South Africa), Ltd., "Kodak House," Shortmarket and Loop Sts.
  Lennon, Ltd., Adderly St.

Natal

Durban: Kodak (South Africa), Ltd., "Kodak House," 339 West St.

Transvaal

Johannesburg: City Photo House, 52 Kerk St.
  Kodak (South Africa), Ltd., "Kodak House," Rissik St.

SPAIN

Barcelona: Catalonia, S. A., Ronda Sant Pere 3.
Madrid: Kodak Sociedad Anonima, Puerta del Sol 4.
  Avenida Conde de Penalver 21.

STRAITS SETTLEMENTS

Singapore: Amateur Photo Store, 109 N. Bridge Rd.
  Kodak, Ltd., 130 Robinson Rd.
  Singapore Studio & Photo Co., 39 High St.

SWEDEN

Gothenburg: Hasselblads Fotografiska Aktiebolag, Ostra Hamngatan 41-43.
Stockholm: Edv. Nerlien, Aktiebolag, Kungsgatan 19.
  A. B. Nordiska Kompaniet, Photographic Dept., Hamngatan 18-20.

SWITZERLAND

Basel: H. Strubin & Co. Cine Service, Gerbergasse 25.
Geneva: Kodak Societe Anonyme, 11 Rue de la Confederation.
  Louis Stalder (Photo Hall), 5 Rue de la Confederation.
Lausanne: Kodak Societe Anonyme, 13 Avenue Jean-Jacques Mercier.
Zurich: Ganz & Co., Bahnhofstrasse 40.
  Gimmi & Co., Cine-Service, Stadelhoferplatz, Gottfried Kellerstr. 5.

SYRIA

Beyrouth: Misbah K. Itani, Rue Rami, Palais Municipal.

Closeups —What filmers are doing

Here at home, a nice angle on the League dinner was the presence in our midst of the absolutely initial copy of *Riverside Drive,* the tenth novel written by Beth Brown, ACL, concluding speaker at this Tenth Anniversary occasion. Published by E. P. Dutton Company, the very first copy of Miss Brown's new book was delivered to her when she arrived at the Roosevelt Hotel, where the dinner was given. The novel tells a vivid tale of three generations on New York's once glamorous boulevard of beauty. From the late 19th Century, Miss Brown carries the three women of her fictional family through a cycle of work, wealth and wisdom, which dramatically mirrors the history of the Drive.

Here are some highlights of the Ten Best film hunt: Of *Two Weeks,* that delightfully human 8mm. record of a mountain camping trip, W. W. Champion, ACL, said in a letter, "These pictures were taken just for fun and with no intention of working out complete technical details" . . . Gwladys Wynne Sills, ACL, the charming producer of *Moroccan Cities,* traveled a week in French Algeria to catch scenes of a community she wanted in the film, only to be turned back from the city's gates when she arrived . . . *As We Forgive,* as smooth a one reel photoplay as you would want to see, was shot in seventeen hours of continuous filming by Kenneth Space, ACL, and Dan Lindsay . . . Frances Christeson, the brilliant coproducer of *Architecture and Fine Arts,* is a librarian at the University of Southern California, in Los Angeles . . . The basic plot of *Pinch Hitter* was evolved by Charles Carbonaro, ACL, from a casual note in a tabloid gossip column.

Nite Life, that knockout Kodachrome comedy, has been in production since January first of this year, at an average working time of four hours a day. After just missing a mention last year, J. Kinney Moore, ACL, took but one New Year's resolution—to make a Ten Best film or bust. The result arrived at League headquarters in a specially built container, padlocked and insured for $5,000. . . . Replete with stunning interior scenes, *East Coast* was produced with a fixed focus, *f*/3.5 camera and homemade lighting units . . . A new high in murders must surely have been reached in *The Scalpel,* a striking melodrama of medical horrors, what with characters dropping at nearly every turn of the reel . . . Exotic foreign settings play no part in Fred Ells's bag of tricks, as you might have thought because his *In The Beginning* of last year was made in Japan. Every scene of this year's *Consider The Lilies* came right out of Berlin, N. H., a sleepy New England village.

How J. Kinney Moore shipped "Nite Life" to the League

In *Bryce Canyon Wonderland,* a crisp and chromatic scenic, by Frank Gunnell, ACL, we liked best the shot of a dog trying to see if the canyon's colors were brighter if viewed upside down . . . The Henry Hokes must go for tomatoes in a big way, since the whole family worked throughout the summer in the backyard patch which produced *Love Apples* . . . Before seeing *On Every Hand,* the polychrome bird study by William L. Zeller, ACL, we had no idea there could be so many beautiful birds in the world . . . Nor had we a thought, before seeing *Mount Vernon Seminary,* the T. W. Willard, ACL. lyric of a young ladies' finishing school, that so many beautiful girls could all be gathered in one place.

By the time you read this, the ninety two foot schooner, *Yankee,* whose captain is Irving Johnson, will be just a month out of Gloucester, Mass., sailing leisurely westward on an eighteen months' cruise around the world. On board, besides a number of passengers who have paid thousands to go (yet who will do all the work of the deck crew), there is Edmund Zacher, II, ACL.

Staff photographer in both "stills" and movies for this second cruise of the *Yankee,* Mr. Zacher is known to many as the producer of such distinguished films as *Birds of a Feather, Christmas at Home* and *The World's People.* This year, it will be Christmas on the high seas, but, as he suggests in a farewell note to League headquarters, he certainly aims to see and film the rest of the world's people. Pago Pago, Galapagos, Pitcairn, New Hebrides and Singapore! These are but a scattered few of the alluring outports which will welcome the *Yankee.* As a start toward picturing them, Mr. Zacher has with him on the schooner two cine cameras, three still cameras, 10,000 feet of 16mm. Kodachrome, 10,000 feet of 16mm. black and white and about a hundred rolls of assorted still films.

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MAGAZINE CINÉ-KODAK (16 mm.) Loads in 3 seconds. The film comes in a magazine. Just slip the magazine into place, close the camera cover and shoot. You can switch films at any time—the magazine keeps out the light. With fast *f*.1.9 lens, $125; including carrying case, $137.50.

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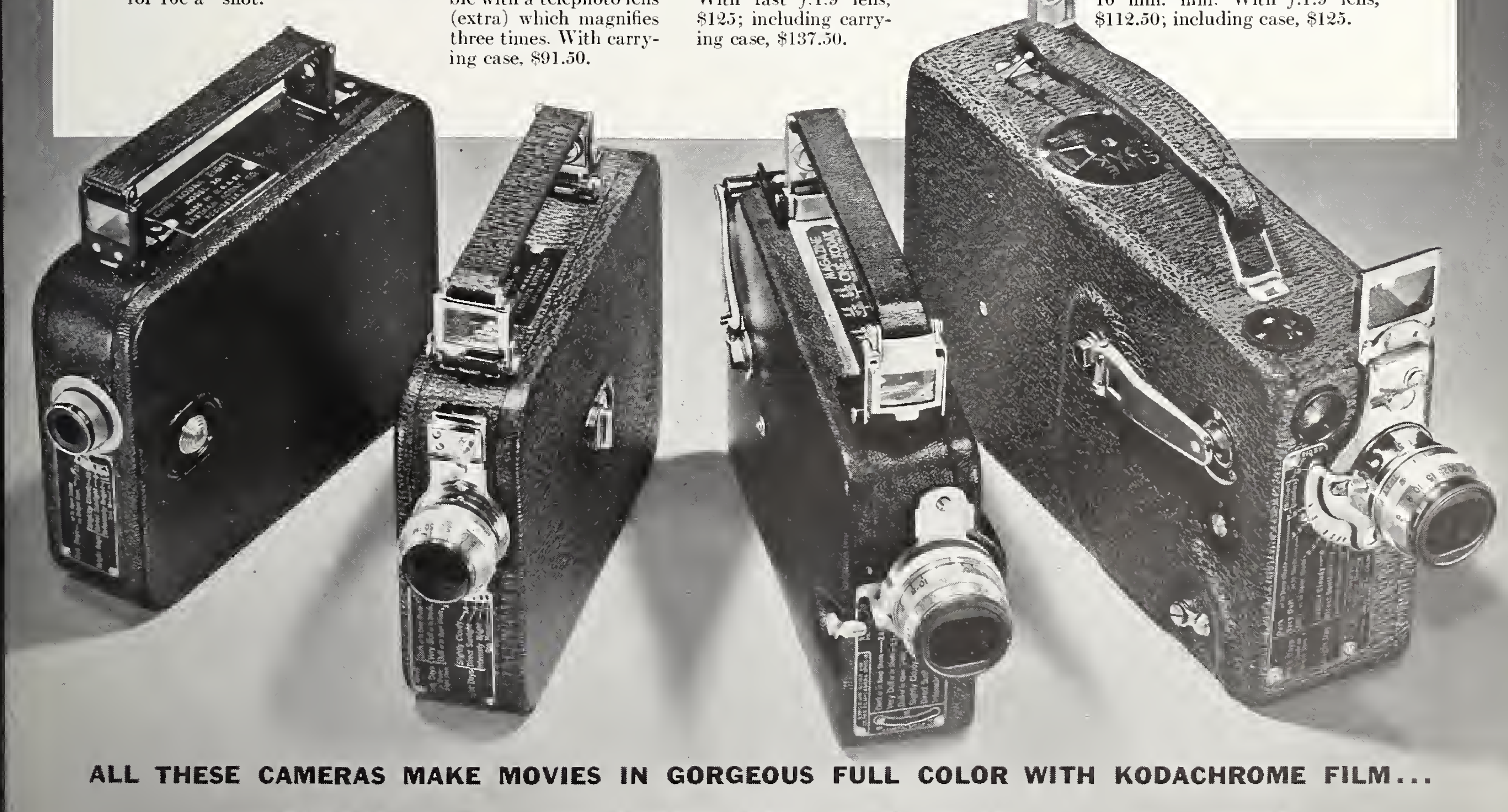

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